





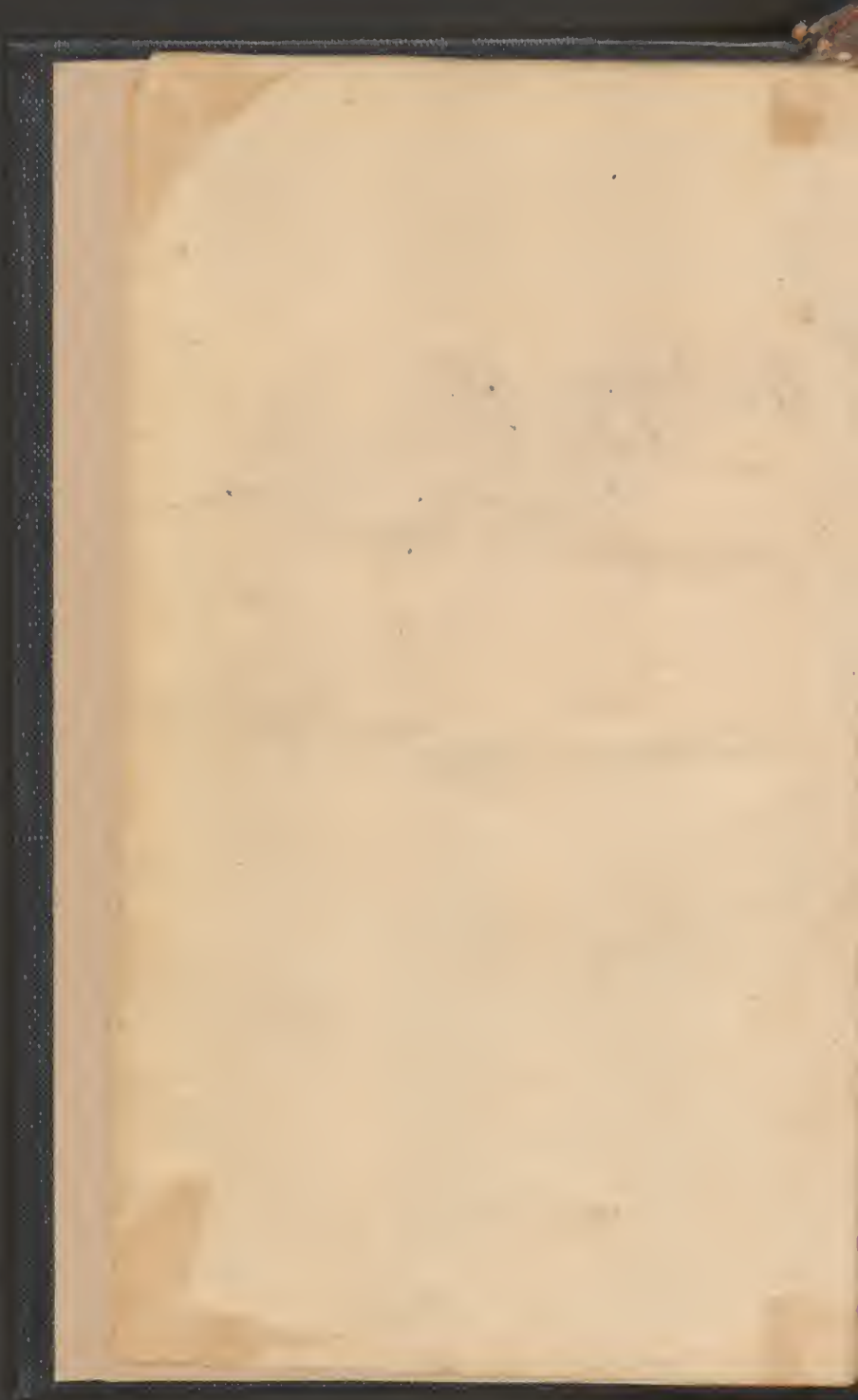
YOUNG (THOS.)

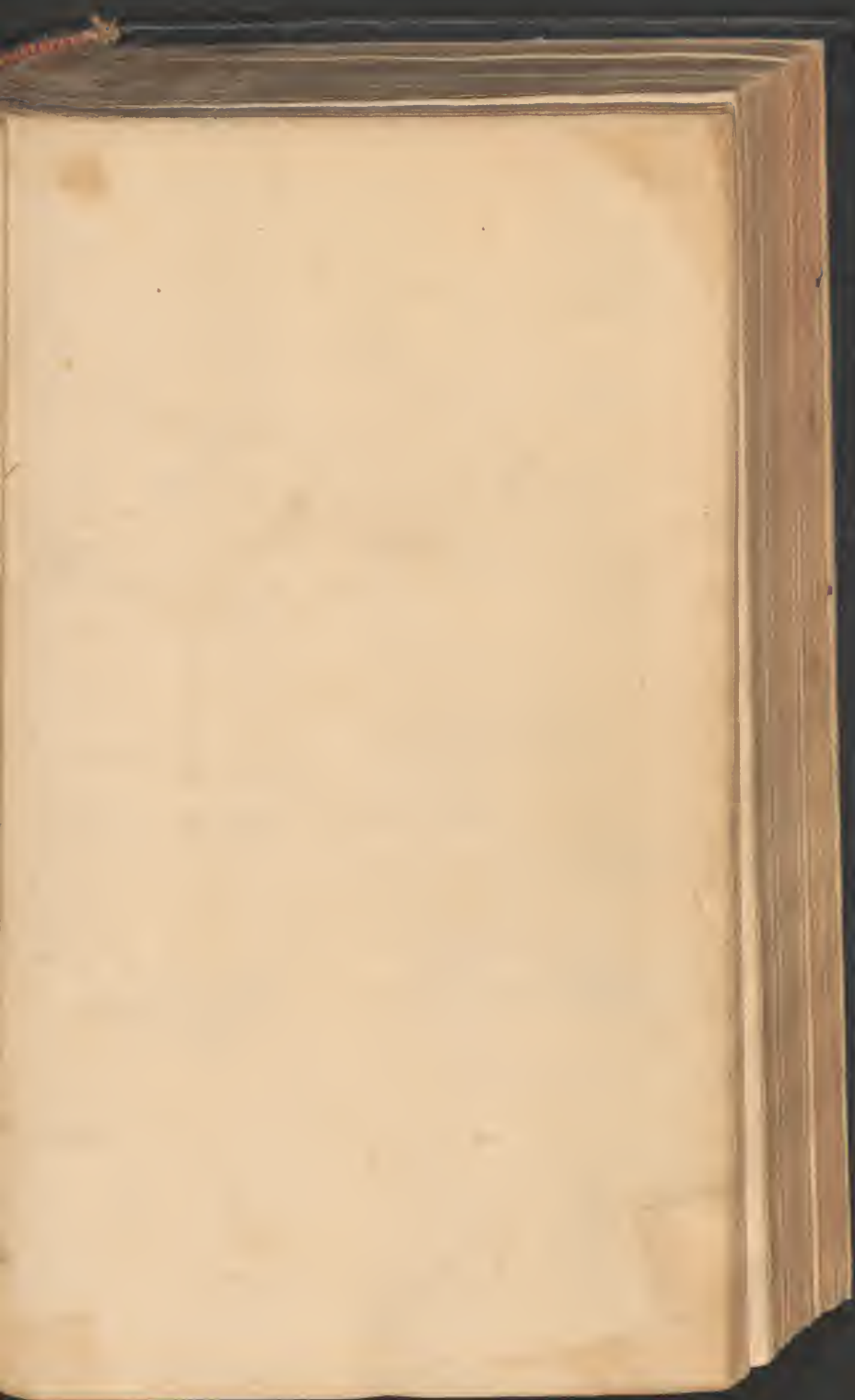
LECTURES ON MIDWIFERY

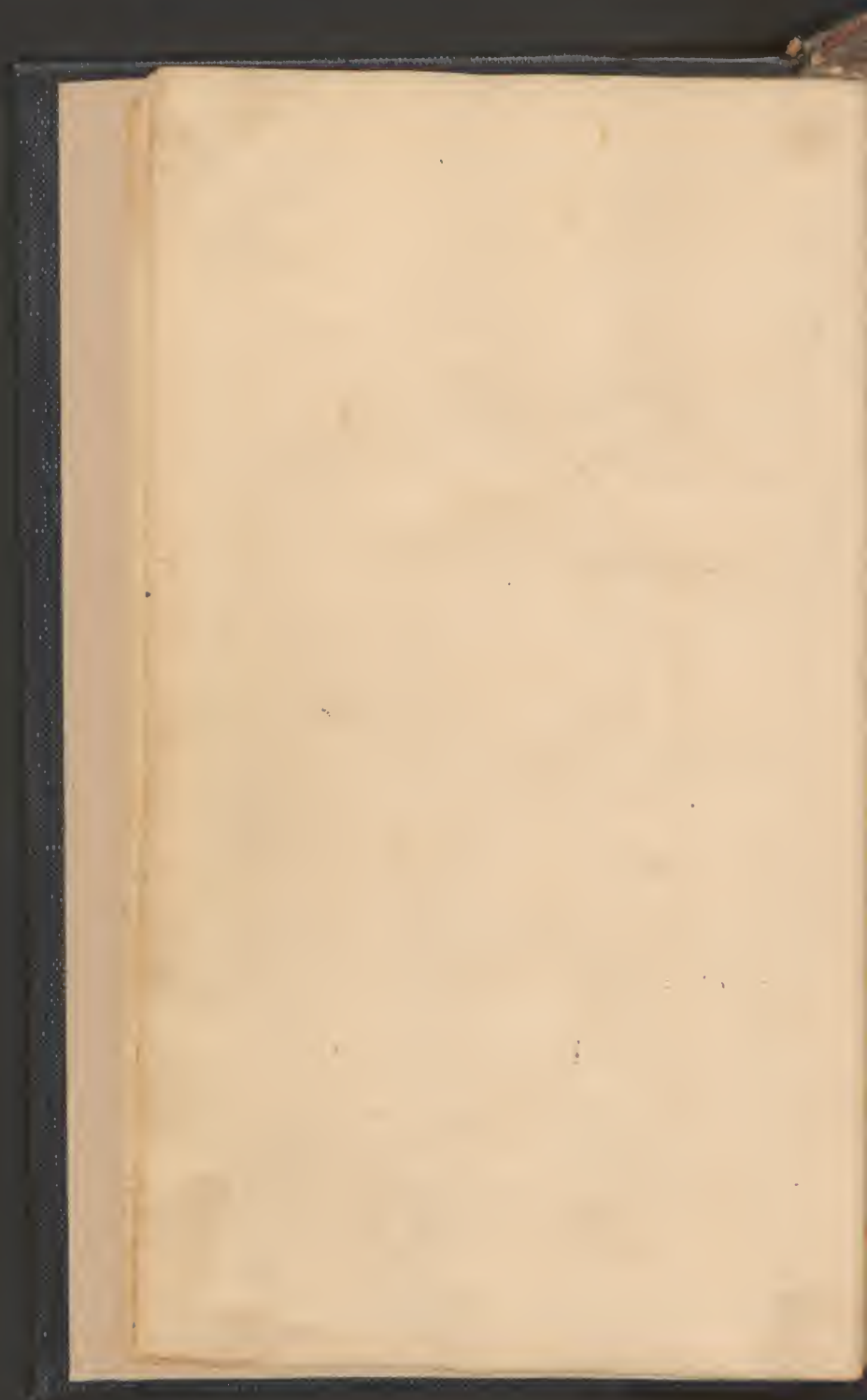
EDINBURGH

1771.









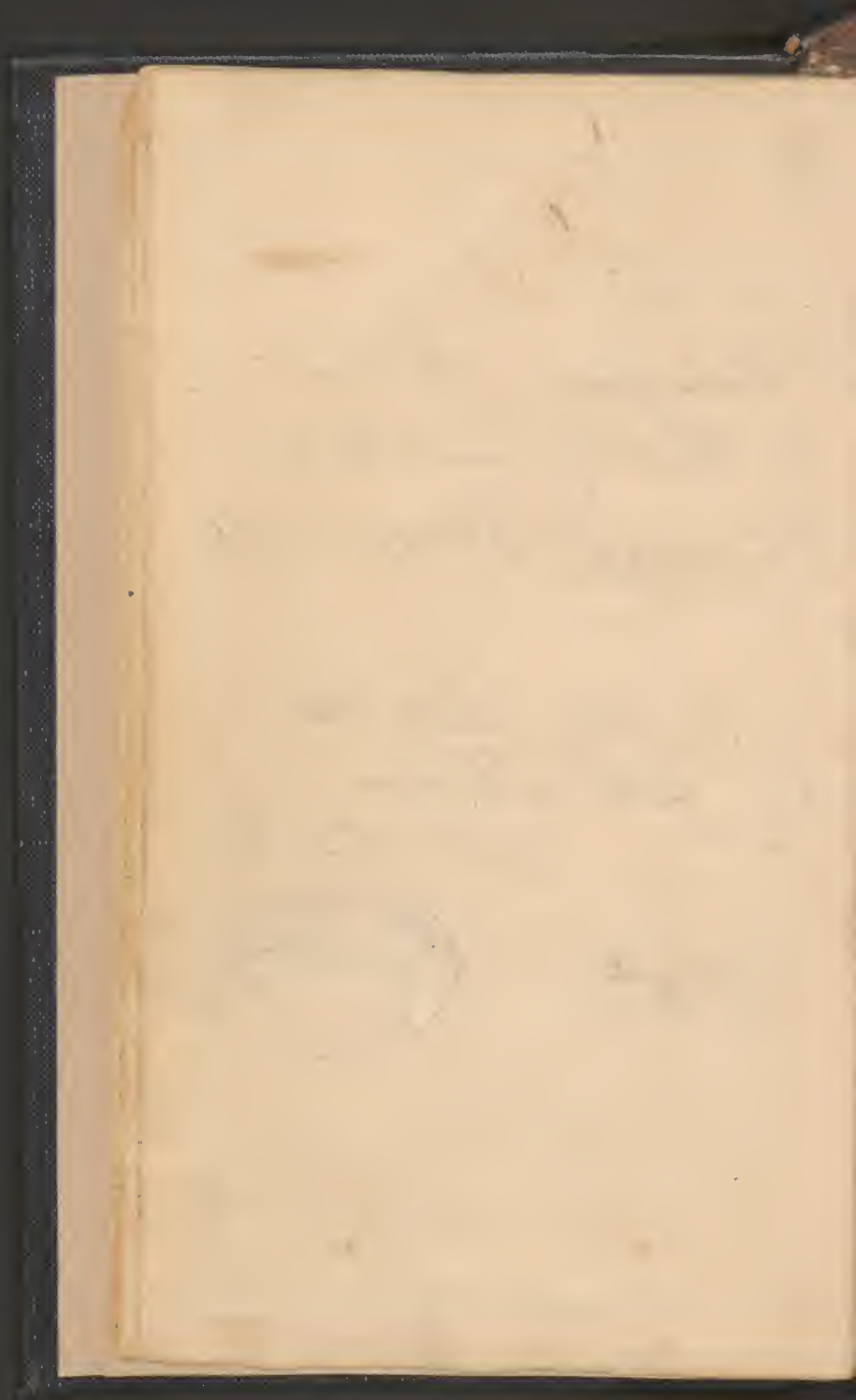
lectures on

Midwifery delivered  
by Tho: Yarrant M. D.  
Edinburgh 14<sup>th</sup> Nov: 1771

— In sorrow shalt thou  
bring forth Children  
Genesis Ch. 3, v. 16

Dr. Hayte





# Midwifery

The word Midwifery is taken in <sup>two</sup> different senses. The one is limited & confined & the other more extensive, the first takes in only the delivering of Pregnant Women, the second not only includes this operation but also all the Diseases incident to unimpregnated women as well as those in Pregnancy & after Delivery, & sad Experience has shown the Utility of taking the word in that <sup>or every limited</sup> Extensive sense as many lives have been saved by it which would otherwise have perished, the prætermatural Labors & bleedings are sufficient proofs of what I say as in these cases a small touch of the hand will Deliver the Mother & Child who would otherwise have perished.

This is a Modern Improvement as the Ancients knew nothing of it & it is only within these 30 or 40 years that Midwifery has been cultivated. I shall enquire into

- 1 The Reasons of the Neglect of this Beneficial Study until within these few years.
- 2 The methods used in the various Kingdoms

for



for the Improvement of this Usefull Art:  
 & The Reasons of the neglect of this Beneficial  
 Study untill within these few Years.

Midwifery was mostly in the hands of Women  
 on account of the prejudices of the Women in the  
 early times of being delivered by any but those  
 of their own Sex & those Midwives knew not  
 the Anatomy of the parts & very often they were  
 the most Illiterate of their own Sex & all the  
 knowledge of Midwifery they had was being  
 delivered of two or three Children themselves &  
 sometimes they even had not this knowledge.  
 several Ages passed along in this manner  
 & no wonder then that Midwifery should  
 have remained uncultivated in these early Ages  
 as these Midwives could not Deliver in Pro-  
 ternatural Births nor in the Natural posi-  
 tion if the Child remained long in the passage  
 they therefore applied to the Men for Assistance  
 & these were Surgeons as it could not be  
 done without Instruments & they had a  
 knowledge of the Structure of the human  
 Body & as they found more use for Instru-  
 -ments in Midwifery as they made improv-  
 -ments. I said these Midwives made no im-  
 -provements & could not have been expected  
 they had no knowledge of Physic, for a Judge-  
 -ment of Physic is inseparably connected with  
 midwifery in order to know the Manage-  
 -ment of Women & here the knowledge of the  
 head



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head should be joined to the Dexterity of the hand  
but as the Surgeons were never called in but  
when the Labor was Difficult which was but  
seldom & was not Lucrative it was not worth  
their while to make it a particular study &  
by these means Midwifery remained unculti-  
vated. About the middle of the last Century  
midwifery was improved in France & the  
Surgeons were more used & the King erected  
an Hospital for the delivering of Women but  
the Improvements were still very small as  
few women would go into it & it was consider-  
ed only as a part of Surgery & no one can  
study several Sciences & be so perfect of them  
as a person who studies only one is of that  
particular study & this is not confined to  
Physic but the same happens in Mechanics  
thus I venture to say that if the whole works  
of a watch was made by the same person that  
it would not be made so exact nor go so well  
but when the works are divided among eigh-  
teen or twenty people, it is made with greater  
Exactness; but in Physic this holds good with  
regard to practice & not to study, thus if  
a person should study one particular branch  
& divide his practice & another study several  
branches but practise only one I say the  
last will know more of the branch he prac-  
tised than the former the one he studied,  
it does not answer to Divide the Practice &

4<sup>th</sup> by not confining your Studies you may do service to the one you practise.

These are some of the reasons for the neglect of this Beneficial Art by the Ancients.

2<sup>nd</sup> The method used by the different Kingdoms for the Improvement of Midwifery.

I said the French were the first who made improvements on Midwifery & most of the Authors from 1652 to 1725 were French Men, & it was long before any improvements were made & M<sup>r</sup> ... in the year 1725 was the first who delivered Lectures on it. M<sup>r</sup> Perivier sunk some thousands of Livres for a Person to give Lectures on Midwifery to Students & Midwives & he was appointed for this purpose & after that <sup>they</sup> obliged every Midwife to attend the Hotel Dieu some months before they were allowed to practise altho the French used these Methods yet it was not till this Century <sup>was well advanced</sup> that any improvements were made. The Dutch were the next M<sup>r</sup> Ruysch gives an account of a Hospital being founded in Amsterdam for the Midwives & were to hear Lectures on Midwifery & as he was Professor of Anatomy there, he was appointed to give Lectures on it & at that time Midwifery was wholly in the hands of women & he gave Lectures to them once a month only which was indeed too seldom.

Altho

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Altho the French were the first that made Im-  
provements on Midwifery, the English altho they  
should not be the first Discoverers yet always  
make considerable Improvement when disco-  
vered, so it happened there. The three Cham-  
berlains were contemporaries with Morriceau  
they pretended to be possessed of a secret by which  
they could deliver cases where Morriceau could  
not, one of them went to Paris in order to show  
the world that he could deliver in cases that such  
a famous person as Morriceau could not, he was  
not long in Paris when such an opportunity did  
cast up, Morriceau had a case which he could not  
Deliver as he had an aversion to the Caesarian  
Operation he gave her over. Mr Chamberlain went  
to her & promised to deliver her in half an hour  
but he wrought three hours with her & she died  
undelivered & we shall find afterwards that this  
secret of his was the forceps - so he left Paris  
without having the Success he expected.

Chapman was the first who taught Midwifery  
in England which was in the year 1730, but it  
did not arrive to any perfection till Dr Smellie  
gave Lectures, he introduced Machines in the  
form of Women & Children & made the Students  
work all the Different cases, which was a very  
great improvement & which was not known  
in France for in the year 1750 they had only  
a Micker Woman & a Dead Child to work their  
Case



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Cases with, in Paris; this opportunity of practice  
which Dr Smellie gave was better than the most  
elaborate Lectures that could be given, besides  
this he gave his Students opportunities of Real  
Practice for he kept Pregnant Women in his  
house which they attended in their Deliveries.  
We began pretty early in this Town to improve  
Midwifery for in the year 1726 Mr Gibson was  
appointed Professor of Midwifery in this Univer-  
sity & there was an Act of Town & Council  
given out, prohibiting any person to practice  
Midwifery in the City unless they attended  
the professors Lectures & was found qualified  
by him. Mr Gibson had composed his Lectures  
as I have seen a Syllabus of them but he died  
before he Delivered any of his Lectures & I was  
the first who ever had the Honor of Delivering  
Lectures on Midwifery in this University. I  
met with many Difficulties at first as always  
happens in the first Institution of any Sci-  
-ence, in this City at that time it was not  
known that Men ever Delivered unless in dif-  
-ficult Cases & I could get few Women to submit  
to be Delivered & those I could scarcely per-  
-suade them from thinking that they were to  
be very bad as they were to be delivered by Men  
& I was obliged to be present at every delive-  
-ry myself for a long time as they would  
not allow the Gentlemen to Deliver them unless

unless I was present. It was also difficult for  
me to make Machines which I was obliged to  
do for as Dr Smellie kept the method of mak-  
ing them a secret I could not get them any  
other way; but however I surmounted all these  
Difficulties & now I think we are as com-  
mon here as in most places.

In the year 1758 the King of Prussia erected  
a College for the teaching Students & Women  
Midwifery in Berlin & his own Physician  
Dr Eller gave Lectures to them which is now  
Dr Mecklen & no person <sup>in his Dominions</sup> could practise Mid-  
wifery unless they studied it at Berlin.

His Late Majesty erected a hospital at Gotten-  
gen on the same footing with that Erected by  
the King of Prussia & Mr Roderer gave Lec-  
tures to the Students & Women & none were  
allowed to practise Midwifery in that Country  
unless they studied it at Göttingen.

Ever since that time Midwifery has been  
taught in all the Kingdoms of Europe &  
what is surprising is that such an useful  
Branch as Midwifery <sup>which had</sup> ~~which~~ received so  
many Improvements within 30 or 40 years  
should have been neglected for so many  
past Ages. I have now shown the State of  
Midwifery in the various Kingdoms & the  
methods used for its Improvement.

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I shall now Consider the Authors who have wrote on this Subject, but it will be needless to mention all that have wrote on it but only the Principal ones for When Midwifery became a Decorative Branch in France every Surgeon endeavoured to introduce himself into practice by writing a book on it which had nothing new in it unless the recommending an Instrument for some great purpose in Midwifery which when put to the trial was of no use at all; therefore I shall pass over these & only mention the Principal Authors.

I have said that the Ancients knew little about Midwifery for if you look into Hippocrates Describing Diseases, & method of Delivery you would not think that they were done by the same person, he had no Opportunity of knowing any thing about Midwifery but what he learned from Women, he thought that a Child presenting the feet was always Dangerous.

Galen who lived about 400 years after Hippocrates knew little more than him, only that he thought a Child may be Delivered by the feet without Danger. The Arts & Sciences arose with the Roman Empire but when on the Decline the Arts & Sciences declined also & then Physic fell into the hands of the



the Arabians but they made no Improvements  
so that for 14 or 15 Centuries Physic was in  
a state of Inactivity

Ambroise Parey Surgeon to King Henry  
III of France was the first who wrote on  
Midwifery, about 1582 he wrote a system of  
Surgery in which he has a Book on Generation  
where we find the practice of Midwifery at that  
time, & to him we owe the method of turning  
the Child in Preternatural Labours so as to  
make it present the feet, for before his time  
all Preternatural Births were turned so as  
to present the head, he abolished this method  
as he found it attended with many inconve-  
niences & turned all these postures so as to  
make the feet present, by which he Delivered  
the Child. In his book we have also figures  
of all the different Instruments used at that  
time which resemble many of the Modern  
ones. He was extremely credulous as ap-  
pears from his Book of monsters. This im-  
provement of Ambroise Parey was far  
from being general after his Death for his  
Successor Monf. Gelleneau recommended  
the making the head present in preterna-  
tural Labours, he wrote a book on Mid-  
wifery in 1609 & was translated into English <sup>in</sup>



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in the 1612 & was then thought the best book on  
the Subject. About the middle of the last Centu-  
ry Learning began to rise & great Improv-  
ements were made & about this time lived  
Morrecau, the practice in his time was  
much in the hands of the Men & he had him-  
self a considerable practice having publish-  
ed a volume of 850 Observations all from his  
own practice he wrote about 1668 he was  
the first who reduced Midwifery into a regu-  
lar & complete System for nothing that  
belongs to Pregnant Women escapes his  
notice; In preternatural Labours he  
turned the Child & made it present the feet.  
The forceps in his time were not known  
therefore in his Laborious Cases he lost  
many Patients. He invented an Instru-  
ment which he called the Fire tete which  
he used when the Child was locked up in  
the Pelvis w<sup>ch</sup> I shall speak of afterwards  
he was an enemy to the Caesarian Opera-  
tion which gave Chamberlain an oppor-  
tunity of trying his secret as before men-  
tioned; at the end of his first volume there  
are a great many Aphorisms taken from  
his own practice which were Translated  
into English by Mr Jones. His second Vol.  
is full of his observations & here there  
gives

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gives the most complete set of Cases that  
you'll find any where being 850 in number  
but the second volume was never translated  
into English. The first volume is trans-  
lated by Chamberlain & has added a few  
observations of his own, under whose name  
it goes.

In the beginning of this Century or 1701  
Deventor a Physician in Dort in Holland  
published a System as much extolled by  
some as was cried down by others, he imagin-  
ed that the Uterus is capable of taking oblique  
situations, sometimes falling to the one side  
sometimes to the other & sometimes over the Os  
Pubis & assigned this as the Cause of Labor-  
ous Births; but he had not much practice  
& any person who has had practice will find  
that he has been mistaken, for it is very rare  
that the Womb will recede so far from its na-  
tural place so as to incommode Delivery;  
he thought also that the Placenta was always  
attached to the bottom of the Womb & that its  
oblique situations were owing to the bottom of  
the Uterus changing its place, but nothing is  
more certain than that the Placenta may  
be attached to every part of the Uterus, he  
imagined too that the Os Coccygis was  
the Cause of a Laborious Birth by its  
not

not yielding backwards & he recommends the pressing of it backwards, but this is needless for if the pains are strong by the Child's head being forced down the Os Coccygis will be pressed backwards or the bones of the Child's head will yield, so this cannot be a Cause of a Laborious Birth. He was unacquainted with the Forceps.

La Motte published his book in 1715 he was Surgeon in Bologna, he made no Improvements on Midwifery & is the same with Moreau & all that he differed from him was in opening the Child's head. La Motte took a crooked history to open the Head & then introduced a pair of forceps such as are used in Lithotomy to extract the head, but of this afterwards. He wrote on a Different plan from those before him, he gives Directions of Cases & then gives Cases to illustrate them, in this way he makes a great many Repetitions & swells his book greatly, but Mr Tomkins has translated it into English & abridged it. It is an useful book. — The first English writer of any note was Mr Chapman he published a Treatise in 1733 w<sup>ch</sup> contains 30 Observations. He first found out Dr Chamberlains secret & pretended to be possessed



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possessed of some secret fellet of his own w<sup>ch</sup>  
Died with him.

Mr Gifford was a man of very considerable  
practice in London & he was called to all the  
Difficult Cases. his observations were pub-  
lished for his Widow & are about 225 in num-  
ber, he first introduced the forceps into common  
use in England & delivered many with one  
single Blade which was long a secret in  
Holland, but he delivered many with the  
forceps where they were not necessary be-  
cause he seldom waited the efforts of Nature  
but when a Birth was tedious he had imme-  
diate recourse to them. In proternatural  
Births he always Delivered by the feet & gene-  
rally by one foot. He always introduced  
his hand into the Uterus to bring away the  
Placenta which was probably owing to the  
manner he was educated, as we know now  
this depends upon the Contraction of the Uterus  
& that it must be allowed some time

Sir Fielding Oulde published a Treatise  
in the year 1742, there are no great im-  
provements in it as he wrote it when a  
young practitioner, he contrived an Instru-  
ment for the opening the head of a Dead  
Child w<sup>ch</sup> is much the same with an Instru-  
ment of Mr Petits for Lancing the Throat;  
he

he likewise gives us a method of assisting when the Umbilical Cord is much twisted about the neck of the Child, in which case the head always slips back when the pains remit & he advises to introduce some fingers into the Rectum & keep the head fast. But I do not find this method answer nor indeed is it necessary.

He likewise describes the manner in which the Child enters the pelvis with one ear to the Os Pubis & the other to the Os Sacrum.

Mr Levret in the year 1747 published a Treatise on Laborious Deaths with a view to show an Instrument he had contrived to extract the Childs head when left in the Uterus, but all his Instruments are complex & never answer the purpose intended. In 1749 he published a Treatise on Polypus & he takes up a hundred pages of it to explain the Terms he uses in it, he is at great pains to show when the Polypus arises from the Bottom, the neck or the orifice of the Womb or vagina, when from the Bottom the vessels are varicose often burst owing to the orifice of the womb contracting on the Polypus & preventing the return of the Blood, therefore they have a constant draining of Blood from the Uterus: — when

When from the orifice & vagina are easily known from the feel, & when from the neck, is known by the veins not being varicose & the orifice of the womb of unequal thickness & a little turned up. But these Distinctions are useless for the Cure of the whole is the same, for you put a Ligature as high up on the neck of the Polypus as possible & tho' it comes from the bottom of the Womb you cannot carry the Ligature any higher than the orifice of the womb; there is no subject that has puzzled this Author more than the method of making the Ligature, he always attempted it by Instruments but always found Difficulties attending them; but no Instrument is necessary here unless a pair of forceps to take hold of it & pull it outwards for the mouth of the Uterus is only 1 $\frac{1}{2}$  Inch from the orifice of the Vagina & if there is any thing growing from the Uterus you can easily take hold of it & pull it outwards which will bring the mouth of the womb still nearer the mouth of the vagina & then you can easily fix a noose with your hands. He afterwards published a Book as a continuation



Continuation of his Pretermatural Labours  
 & says that one cause of a Laborious Birth  
 is after the Head is born the one Shoulder  
 presses on the Os Sacrum & the other on the  
 Os Pubis. he here recommends the sepa-  
 -rating the Head from the Body & then in-  
 -troduce a bratchet into the Thorax & pull  
 it away.

Dr Burton Physician at York published  
 a Book in 1754, he gives a fuller Descrip-  
 -tion of the Pelvis than any before him,  
 he did not seem to have had great practice  
 for he says when the Child presents dou-  
 -ble you should push it up & bring it by  
 the feet but we find that one half of those  
 who present Double will come down in  
 the same way, & he says that you should  
 not hazard the Extraction of the Child by  
 one foot but we find we can do it rather  
 better with one than with both. but his  
 chief design for publishing seems to have been  
 to recommend some Instruments but they  
 all seem to have been contrived in his closet  
 for none of them answer the purpose for  
 which they were intended.

Dr Smellie published his first volume  
 the same year that Dr Burton did his.

He



He is very full on the Laborious & Artificial  
 Births & recommends greatly the  
 use of the Forceps which was on the Decline  
 after the Death of Gifford, but he used them  
 in Cases where there was no occasion for  
 them; What he has wrote of the Diseases of  
 Women & Children is very superficial; after  
 this he published two volumes of Cases in  
 imitation of Morriceau & La Motte with  
 this Difference that he has many Cases of  
 his Acquaintances with his own, whereas  
 they had only their own Cases which ac-  
 cured to them in practice; in order to ren-  
 der his Book more usefull he has since  
 published plates of the Gravid Uterus but  
 they are far from being correct. It is a  
 good Book & you'll find more of the modern  
 practice of Midwifery than in any one  
 mentioned.

Mr Peuseau who had a considerable  
 reputation in France, but it is evident  
 that he never intended his book to be made  
 publick, in the 1759 which was after his  
 Death it was published by one who un-  
 derstood nothing of Midwifery & contains  
 nothing but what fifty people have told  
 before.

Dr Astruc within these 2 or 3 years has

has published 6 or 7 volumes on this subject. It is a pity that he had thrown away all his reputation which he had gained, by publishing this Book; his first 4 volumes are mostly taken up with incurable Diseases of the Uterus & Ovaria, he is by far too tedious, his 5, 6 & 8 are collected from others & his 7 gives us a new System of the Uterus. —

His practice of midwifery is entirely collected from other Authors & is a thing he never practised; he has in his 4 volume a Chronological Catalogue which is the only useful thing in his Book. —

Mr Roederer Professor of midwifery at Gottingen has published several things. — His first *Elementa artis Obstetriciae* is chiefly or entirely taken up with the Practice; in the french Edition we have 14 plates copied from Dr Smellie. he published some other Books relating to midwifery —

These are all the Authors I think necessary to mention I have omitted many of them. Those most necessary to be read by you are Morriceau D'auventer, La Motte & Dr Smellie, this last is commonly put into your hands, but one cannot properly understand him till he has studied a course

Course of Midwifery; he is indeed more  
Useful than any of the others as he contains  
more of the present Practice.

I shall now proceed to that which is more mat-  
terial viz to give you a Description of the  
Pelvis

Description



## Description of the Pelvis

For the purpose of Midwifery it is not requisite to give a Description of it as is necessary in Teaching Anatomy & a very general Description will be sufficient for my purpose.

The Pelvis is made up of eight different bones two before, two behind & two on each side. The two before are the Os Pubes or Thigh bones the two behind are the Os Sacrum & Os Coccygis. & each side has a Os Ilium & Os Ischium.

The Os Sacrum is joined above to the last vertebra of the Loins, below to the Os Coccygis & on the sides to the Os Ilium & Os Ischia, it is in different pieces in the young subject but in the Adult it seems to be one bone, in the young subject it may be divided into three or four & sometimes five different bones & are joined together by a Cartilage which at last becomes Bony; between the whole of the Vertebrae there is a Cartilaginous substance which is thicker at different times in the same person, it is thicker in the morning than the Evening & this is the reason why persons are taller in the morning than Evening for by the Exercise, thro

thro the Day the liquor is squeezed out of the  
Cartilages & thereby become thinner; & the  
Cartilages between the Bones of the Os Sacrum  
becomes hard & bony as those between the  
Vertebra do in Old age, but as the Cartilages  
between the Os Sacrum is thinner they become  
hard sooner. The Os Sacrum on the inside  
is hollow in order to make more room in  
the Pelvis for its Contents & on the Back it  
is uneven by the insertion of muscles & more  
especially for a protection to the Spinal  
marrow which runs from the head to the  
Extremity of the Bone which forms a pro-  
tuberance all the way in the middle. On  
the inside there are small holes thro' which  
nerves go, which join together & assist in  
forming the great Sacral Nerve. —

The Os Coccygis is made up of four bones —  
which are connected by Cartilages to one  
another & to the Os Sacrum; in women come  
to years it is moveable altho the Os Sacrum  
is immoveable & by the Os Coccygis moving  
backwards by the Childs head pressing a-  
gainst it, the passage is enlarged for it.

The Ossa Pubes There is a body & two  
branches in each & the two bodies are  
joined together & form the fore part. The

The Ossa Iliæ are irregularly convex & concave  
owing to the Insertion of muscles.

The Ossa Ischia each of them have a spine which  
sometimes interrupts the Childs head & thereby hinders  
Delivery.

Some of these Bones are joined together by a  
Woody matter & others by a Cartilaginous  
matter as the Ossa Pubis to one another & the  
Ossa Ischia to the Os sacrum.

It is a dispute whether or not these Bones are  
separated in Delivery to allow an easier exit  
to the Child; you'll <sup>see</sup> many instances in Authors  
of these Bones being separated in Difficult  
Labours; but it is certain that these Bones  
for the most part are joined so firmly together  
that they can hardly be separated by a knife  
& therefore it cannot be supposed that they  
can be separated by a Difficult Labour. &  
I have seen many Women die of difficult La-  
bours & have had opportunities of examin-  
ing some of them afterwards but I never  
found these Bones separated. It sometimes  
happens that by Disease these bones may  
be separated, by the Cartilages becoming  
soft, there have been several instances  
of this.

A number of people imagine that  
these



these bones are formed so by nature that they may separate in the time of birth, but this would be inconvenient, for if these bones were loosened the person could not walk, as walking depends greatly on the firmness of these bones & if this was the case a woman would <sup>not</sup> be able to walk after Delivery until the bones became firm which would take some time, but we see this is not the case & therefore we may say there is no separation of the bones in Delivery.

The bones at first sight seem to be ill contrived & one would think that they might have been better done, but after a little examination they appear to be wonderfully executed; there is a hole thro' the Foramen Ovale, in which a strong Ligament, the External & Internal Obturator muscles enter, & it would be very inconvenient if it was otherwise; Also the Acetabulum is thick & high on the outside & low & thin on the inside, the reason is that there is no Danger of the head of the thigh bone going out of it on the inside, but a very great danger on the Outside, but there is another Design on this there are glands on the Acetabulum, & on the inside where the brim is lowest the blood vessels enter to supply them



them & there could not be a more convenient part for that purpose, likewise if the Perim on the inside was as high & thick as on the outside, in certain motions we might have endangered the breaking of the Perim or the head of the thigh bone.

The Perim of the Pelvis is of an Oval figure the long Axis is from side to side & the short from before to behind; thus is the case in a well made woman, there may be a little variety but it is generally the case that between the Os Sacrum & Os Pubis there is a Distance of  $4\frac{1}{4}$  Inches & from the one Os Ilium to the other is  $5\frac{1}{4}$  Inches so that there is one Inch a Difference. Again in the bottom of the Pelvis from the fore part to the back part is the same with the distance which is between the Tuberosities of the Os Ischia, thus is in the common state but in Delivery the Os Coccygis is pressed backwards & on that account the Distance will be greatest from before to behind & is the reverse of what it is at the brim.

We find the depth of the Pelvis is different in different parts, it is shallow before, deeper at the sides & deepest at the back part, it is generally about two Inches deep before, four Inches at its sides & six Inches at the

the back part, so that it is twice as deep at the back as what it is before & thrice as deep behind as what it is before.

The next thing to be considered is the shape of the Child's head, this admits of greater variety & I cannot estimate it by Inches as was done with the Pelvis, but generally speaking it is one inch more from the fore head to the hind head than from side to side, indeed this differs greatly for on examining thirty children's heads you will not get one like another, but unless the head receives some hurt in delivery, or it being diseased there is always one inch of difference. The Child in the womb has generally its head lying on its right shoulder & then on its breast, so when it descends its face will be to the right Os Pubis & the longest part of the head will be to the longest Diameter of the Pelvis; one would imagine at first sight that the Child would descend with the hind head to the Os Pubis & face to the Os Sacrum but if this was the case there would be a great inconvenience for the long part of the head would be to the shortest Axis of the Pelvis & the Child would descend no further till the bones of the head were modelled

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modelled to the pelvis, but it will enter more easily when the sides of the head are towards the Os Sacrum & Os Pubis as here the largest diameter of the Head is to the largest Axis of the Pelvis. But it is the reverse at the bottom of the pelvis from what it is at the Ventrum & therefore when the Head of the Child is past the Ventrum, by descending in that way. the head will find a great resistance which will make the head turn w<sup>th</sup> the face to the Os Sacrum & hind head to the Os Pubis & here the longest Diameter of the Head is to the longest Axis of the Pelvis; the same knowledge is necessary when the Child presents the feet, for when part of the Body is delivered in order to make the head pass the Ventrum of the Pelvis the face & hind head must be to the Os Pubis & the reverse in the lower part of the Pelvis, sometimes here the Delivery is retarded by the head being raised up, when this is the case you must put your finger into the Childs mouth & press the Chin on its Ventrum & then it will be Delivered easily. —  
I shall now consider

the



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The difference between the Pelvis of a  
Man & Woman.

The cavity is larger in Women than in Men & the Thigh bones in Women is further removed from the center of the Pelvis & thereby the Thigh bones are more oblique. In a well made Woman the distance between the two Osæ Iliæ is  $\frac{1}{2}$  greater than the breadth of her Shoulders & the breadth of a Mans Shoulders is  $\frac{1}{2}$  greater than the Distance between the Osæ Iliæ, by this means there is a great difference between the size of a Pelvis of a Woman from that of a man. The Pelvis's of all Animals swift of motion are very Different from that of the human body, it is in them longer from the fore part to the hind part than from side to side & is quite the Reverse from that of the human body. — Another difference between the Pelvis of a man & woman is the Os sacrum in men forms a curve & in women it is straight by which the size of the Pelvis is considerably enlarged. Again the Branches of the Os Ischium form a more obtuse Angle in Women than men owing to the bones spreading out more which increases the size of the Pelvis. Of

### Of the Deformed Pelvis

The Pelvis is sometimes Deformed & Distorted & this may be in different ways, the Deformity may be confined to the Wrim, or to the Bottom of the Pelvis & sometimes the whole Pelvis is distorted & deformed; of each of which I can show you many Examples; Sometimes women who are well made to appearance have bad Pelvises & Deformed Women good ones, and generally Women who are Richly when young have bad pelvises as in that Disease the bones are soft & they always sit & use no Exercise & then the weight of the body is upon the Pelvis which makes the bones yield & thereby distort them & when they come to be twelve or fifteen years old the Disease leaves them so that they will become stout well made women to appearance but they will still have bad Pelvises Deformed Women may have sometimes good pelvises, for sometimes the Deformity is only confined to the Back bone & the Pelvis very well formed, but if the Limbs & thighs are Deformed as well as the back bone then we may be assured that the Bones of the Pelvis are likewise Deformed. But in general when we



we see a well made Woman we may conclude that she has a well shaped Pelvis & vice versa but yet this Rule admits of Exceptions. Sometimes altho Women have had Children & been easily Delivered yet by Accident or Disease they may happen to have Difficult Labours afterwards. I had an Instance of this some time ago a Woman who had been pretty easily delivered of several Children, happened to get the head of her thigh bone broke with the Osse Innominate which by the one piece going over the other & the Callus formed between them the Cavity of the Pelvis was diminished, she fell with Child afterwards & had a Difficult Labor.

We know a Pelvis to be narrow from the progress of the Labour, if the mouth of the Womb is Dilated, the waters broke & the Labour pains continue strong & yet the head of the Child remains at the Rim of the Pelvis & does not in the least advance then we may conclude that there is a Deformity of the Rim of the Pelvis. Another mark of a narrow pelvis is when the Childs head presents in a sharp form instead of a full roundish form, for by the narrowness of the Pelvis

Pelvis. the head cannot go thro unless the bones of the Childs head overlap one another which makes ~~of~~ this shape & here you may easily feel the edges of the bone. Another way of knowing a narrow Pelvis is by the Touch. ~~by~~ this you know whether or not there is any Deformity in the Bottom of the Pelvis, but if it is in the Vvrim. as you can feel no more there than about the bigness of half a Crown & you cannot even tell there what part of the head it is you feel & therefore you cannot be certain of a Deformity there by the Touch; but when you think there is a Deformity in the Lower part you introduce your finger & thumb up the Vagina & by separating them you can know the distance which is allowed for the Childs head & you can judge whether or not it will allow it to pass; but this need not be often done as it gives the woman pain & the Deformity of the lower part does not happen to one Woman of fifty, therefore this is not to be done unless you think by the slow progress of the Labour after the Childs head has passed the Vvrim that there is a Deformity in this place. In this Sharp form of the Childs head - the Child may be Delivered alive & no Danger to the Mother.

A Woman may sometimes have a Tedious Labour altho she has had Tolerable easy ones before

before owing to the Childs head being too large either by  
 being so naturally, or the consequence of Disease as  
 a Dropsy of the head which is pretty common to Child-  
 ren before Delivery so that the head will acquire  
 three times its natural Bulk, & the Marks of —  
 knowing this are, when you feel something of  
 an Extraordinary bulk & you feel large mem-  
 branous spaces between the Bones & by feeling  
 youll be sensible of a fluctuation of water within  
 them, here you cannot deliver the Child unless  
 you let out the water which you can do easily  
 by pushing your finger thro' the Membranes  
 & then the head will go in little room. But it  
 may happen that these Children do not present the  
 head but the feet. I had a case of this some time  
 ago. A Woman had been some time in Labour  
 before I was called, when I came I found the  
 orifice of the womb was Dilated to the bigness of  
 half a Crown, the waters were not yet broke,  
 & I referred for some time till the mouth was  
 Dilated more & then the waters broke & I found  
 an Extremity presented which I imagined was  
 a head as the Child was so long in coming down  
 (for when a hand presents they are alway longer  
 in coming down than when a foot presents)  
 but a little afterwards I found that it was a  
 foot which presented & by it I was Delivering the



the Child but I found the head stuck at the bottom of the Pelvis, by which I thought that the longest Diameter of the Head was to the shortest axis of the Pelvis, I therefore introduced my hands & found that the head was in the proper Direction. I put my finger into the Child's mouth & pulled with some force, but still it would not come I then pulled with more force: & then a great quantity of water came away owing to the membrane burst-  
ing at the Temporal bone & then the Child was Delivered with great ease.

I shall now consider the method of Delivering in Narrow Pelvises.

In some narrow Pelvises by having Patience & not exhausting the Woman but supporting her, she may be delivered with Tolerable ease of a living Child; for the head of a Child is not the same with that of an Adult, the bones in an Adult are indented firmly together & are with very great difficulty separated in some persons & in many this cannot be done, but the bones of a Child's head are joined only by membranes & can be very easily separated so that if the longest Axis of the Pelvis should be too short for the longest part of the head the bones will be pressed together or overlap one another so that it may pass with tolerable ease; or if the longest Diameter of the Child's head



head should fall on the shortest Axis of the Pelvis by allowing time the frontal & Occipital bones will be pressed to one another, & will then pass with tolerable ease. Therefore if you'll have patience the Childs head will be modelled to the cavity of the Pelvis & the Child will be delivered with Tolerable ease).

Sometimes the Pelvis is so much deformed that it will not allow any Childs head to pass, in this case we must open the Childs head in order to evacuate the Brain & diminish its size & then it will be delivered, by this means the mothers Life is preserved.

But still you may meet with some pelvises which are so Deformed as not to allow either head or body to come away, in this case we must have recourse to the Caesarian Operation, for altho the Childs head was opened & brought away the body would be likewise obliged to be taken away by piece meal which would hurt the woman as much as the Operation, & in this way we may save both the mother & the Child.

This is the method of Delivering in Narrow Pelvises.

The upper part of the Os Sacrum is higher than the Os Pubis & this may show us the posture the Woman should be in when she is to be Delivered; if the Woman stands upright the

The Child's head will not fall upon the Center of the Pelvis but upon the under part of the Os Pubis & therefore this is a wrong posture; if she lies on her side, the head will fall on the Ligaments of the Os Ischium, but the pain will cause her turn over & then the Child's head will fall on the center of the Pelvis; if she sits on her knees the head of the Child will fall on the under part of the Os Pubis, but the pain will cause her bend forwards & the head will fall in the Center of the Pelvis so any of the two last ways will answer. — This finishes the consideration of the Pelvis. — I come now to consider

## The Parts of Generation

They may be divided into two the External & Internal. The External are seen without Dissection. The Internal are lodged within the cavity of the Abdomen & require Dissection before they can be seen. and

The External, & the first of these is The Mons Veneris which is that fatty Eminence above the conjunction of the Os Pubis (a quo invicem: Pelli. etate pubertatis) a continuation of this forms the Ala majoris or Lalia Pudenda, these lye clapt together & defend the parts from being hurt by the External Air & no more

is seen untill they are separated, the skin of their Interior parts is thin & thereby of a Reddish color there are small Orifices in them which pour out a Sebaceous Liquor which preserves them moist & prevents them from being hurt in walking &c. When the Labia are separated then appears the Clitoris which resembles a small Uvula, it is of different sizes in different Women, but the largest is about the size of a small Uvula, the greatest part of it requires Dissection to be Discovered, it has two Limbs which arise from the Tuberosity of the Os Ischium which unite at the Symphysis of the Os Pubis & forms the Body at the extremity of which is the Glans & here there is a Doubling of the skin which is called the Preputium, it resembles the Penis as it is composed of two Corpora Cavernosa & like it, is capable of being inflated & Distended by Anatomical Injections, & is distended in the same way with the Penis. It has two muscles some say four, which are called Erectores Clitoridis, they arise from the Tuberosity of the Os Ischium & in ascending go around the Vagina & evidently serve for constrictors of the Vagina.

The Alae Minores or Nymphæ, one on each



each side of the Labia & are composed of the same substance with it, is situated immediately under the Clitoris, they lay close to one another & they must be separated before you can see the Urethra, this is an opening between the Nymphæ, it is shorter in Women than in Men, it is in a Direct Line in Women where it is curved in Men, it is only about an Inch & a half in women whereas it is much longer in Men, in Women it is surrounded with a Glandular substance which supports & strengthens it, called Coopers Gland (in men the Urethra is supported by the Prostate Gland) from these Glands there are Ducts which terminate about the Orifice of the Vagina to moisten it.

Vagina). This appears to be shut owing to some spongy substances in its orifice called Caruncle Myrtiformis which was thought to be produced from a Laceration of the Hymen but this is not the case, they are situated in the Inside of the vagina & felt it up but they yield easily to the finger. The vagina is supposed to be four Inches in length, but it is only about two or two & a half Inches in length; Its structure is the same with the Uterus, the villous or inner coat is formed into Rugæ which is



is most remarkable in unmarried Girls. It receives Arteries from the Epigastrie, like the Uterus & the vessels of the Uterus anastomose with those of the Vagina. The vagina in a woman who has born children has Rugs altho not so distinct as that in a young girl. but the Uterus of a married woman is quite smooth on the inside whereas that in a young Girl is formed into Rugs.

Perineum. It is about one inch in length but in Labour it undergoes great stretching & is then about two inches, & if the Labour is very hasty it is apt to be broke but nature has made a provision for this that the first Labor is never so hasty as afterwards. for when the stretching is gradual there is no danger of its breaking, but when the stretching is sudden it is very apt to break; the Rectum will be stretched also & in the same way is very apt to be Lacerated. —

2 The Internal Parts the first of these is The Uterus. It is a pyramidal body & is situated in the upper part of the Pelvis, it lies below the Bladder & above the Rectum. — it resembles a flattened pear with its base furthest up in the pelvis & angle at the vagina. It is convex in the anterior & concave in

in its posterior surface.

It is divided into three parts the Fundus, Cervix & Os Intimum. The Fundus is all that part where the Cavity is enlarged, & that part which is contracted is called Cervix; when it is cut open it is of a triangular shape & the inside of the fundus is smooth in Women who have had Children but rough in young Girls, it is smaller in young Girls than in those who have had Children, for altho it contracts very much after Delivery, yet it does not become so small as before. The Cervix has a valvular appearance & is like a feather being rough & unequal.

There have been Disputes about the structure of the Uterus, some say that it is Glandular, others Tendinous, but it appears to be a hollow muscle as it has a great many muscular fibres & possesses a great power of Dilatability & Contractibility as in two Days after Delivery, it is almost as small a Bulk as ever. It is kept in its place by four Ligaments two broad & two round. Ovaria. They are connected to the Uterus, they are two in number & are always

always large in Women bearing Children, they are situated about an Inch & a half or two Inches from the Uterus. We are in the Dark with regard to their Structure, many are of opinion that they are formed of Vesicles & these vesicles form the Ova, we find only about two or three of these vesicles in a young Girl but many more afterwards. It is connected to the Uterus by a Ligament which some have supposed to be a vessel & have given it the name of Vas Deferens but it is only a Ligament formed by a Duplication of the peritoneum. There is some fluidity in the Ovaria, for at certain times they swell & burst & a liquor is poured out, the hole remains into which a probe may be introduced, to satisfy yourselves in this you may examine the Ovaria of a live Animal that is hot. — At the time that the Ovaria burst they are grasped by Tubes, these tubes come from the superior & lateral part of the Uterus & at their Extremities there are a number of fleshy fibres which grasp the Ovaria when they burst and carry something to the Uterus; they are called the Fallopian Tubes, these are small when they come from the Uterus but gradually become larger & the largest part is called the pavi-  
 lion — from which there are fleshy fibres which is called the Morvus Diaboli, their Use seems to be, to carry on a communication from the Ovaria to



to the Uterus. The Uterus receives blood vessels from the Epigastric which divides into two branches, one goes to the Uterus & the other to the vagina. The Uterus also receives blood from the Spermatic Artery, it arises where it does in the male & as it Descends it sends off branches to the Ovaries, Fallopiian tubes & broad Ligaments & then continues its course to the Uterus, where it is confused with the Epigastric Artery, & the branches of the Epigastric which go to the vagina & Uterus anastomose with it.

The Uterus has three openings the two Fallopiian Tubes laterally & the Os Internum which opens towards the vagina. The Os Internum is small equal & smooth in Women who have not had Children, so small as not to admit a probe, but in Women who have had Children, altho it contracts pretty much yet never so much as it was before & also it is not so smooth in those who have had Children & this may be a mark to know whether or not a Woman has had Children.

The Uterus does not lie in the same horizontal line with the vagina but lies slanting upwards & forwards, so that when you introduce your finger into the vagina & touch the Os Internum you as it were support the Uterus.

This finishes the Description of the parts of Generation & as they are liable to Diseases we shall next speak of them —

Diseases



Diseases of the Parts of Generation;

The Mons Veneris & Sabia Pudenda are liable to oedematous swellings as every part of the body is where the motion of the blood is languid & weak & sometimes they swell to a considerable size & become Anasarcois in this case a puncture must be made to let out the water, but this is seldom necessary & I never saw a case which required it.

Oedematous & Anasarcois swellings often happen to Women who are with Child, you would think that the swelling of the Sabia would interrupt the Delivery, but this is not the case, for the stress as I said before is not on the Sabia but the Perineum & Rectum & therefore it will not hinder Delivery.

Sometimes Tumors grow upon the Sabia & Mons Veneris. I saw one of a very considerable size of a fatty nature, it happens on the body that according to the nature of the part upon which a Tumor grows that it always partakes of it, if on a fleshy part the fleshy, if on a fat part as in this case the  
Tumor

Tumor is likewise fatty. In these cases the Tumor must be cut off which is very easily done & there is seldom any occasion for taking off a vessel. The Sabia sometimes grow together which may happen by being long Delirious in a fever where the Arteries is passed involuntarily which excoerates them & takes off the skin & by the one being applied to the other the parts grow together in the same manner as a cure of a Flare lip is performed. The cure here is very simple by separating them & applying pieces of plaster to prevent their Reunion. I saw once a case of this owing to the Cause I have ascribed.

The Clitoris sometimes is of a very great length so as to make them what are called Hermaphroditis, i.e. Persons who partake both of Male & Female, but I am of opinion that they are all Male, I have had occasion to examine three who were called Hermaphrodites & particularly one, I found that what was called the Clitoris was a Real Penis, the Testes were taken away & the Scrotum divided to appear like the Labia & a small hole was made.

made that could admit of a little finger, but it appeared evidently that he had been manufactured when young in order to make more money of him by making him resemble both -  
Sexes.

The Nymphæ sometimes become too large, especially in Warm climates, by the Heat relaxing the parts & they sometimes become so large, as to be very uneasy in walking & interrupt the making of water in some measure; in this case they may be cut off & as no great vessel goes to them there will be no Hemorrhage but if they are very large the vessels will be increased in proportion & sometimes altho they do not bleed much in the time of the Operation, they may a few hours after it bleed a great deal, but this can be easily prevented by grasping the Artery for some time between the finger & thumb & if it does not stop by this take it up with the Needle & Thread.

The Urethra. It is situated between the two Nymphæ & above the Vagina, in women who have not had children there is some space



space between them but in Women who have had Children the Urethra seems to come out of the Vagina & hence mistakes may arise in sounding - The Urethra is short & in a straight Line & is capable of very great Distention so that stones of a considerable Size may be passed from the Bladder; there is an Instance of a stone being passed weighing two Ounces two Drams & two Scruples & there is another Instance of a Stone being passed weighing four Ounces, but such large stones are Rare Occurrences - hence for these Reasons Women are less subject to the stone than Men, as from the shortness of the Canal, being in a straight line & easily Distended it will allow small stones to pass; but however these do not hinder altogether from being subject to the Stone but by the Accounts of the Hospitals there are very few Women subject to this Disease in comparison of Men. The symptoms of the Stone in Women are the same as in Men, a weight about the Os Pubis pain in the Back &c but instead of a prur in the



the end of the Uterus in Men there is an itching  
 -ness & pain in the End of the Urethra &  
 Vagina. When there are symptoms of a Stone  
 in the Bladder they must be sounded with the  
 Catheter; It is more easy to do this in Women  
 than in Men on account of the Urethra being  
 short & straight in Women whereas it is long  
 & curved in Men. it is done with little or no  
 pain to Women whereas it is very painful  
 to Men. The manner of holding the Catheter  
 is to hold it near the outwards End between  
 your finger & thumb with the palm of your  
 hand upwards; the common method is quite  
 opposite to this, in this way you may push  
 the Catheter too far in the Bladder, as you  
 cannot see when the Urine runs out for  
 your fingers whereas in the method I  
 recommend as soon as the Catheter is  
 introduced into the Bladder you know it  
 by the seeing the water run out & then  
 you immediately stop. The method of  
 sounding them is you lay them on their  
 back & separate the two Labia, after-  
 wards the two Nymphæ, then you see a  
 small

small Opening above the Vagina, if you do  
 not see it, you carry your finger along from  
 the vagina to the Os Pubis & in your way you  
 will feel your finger sink a little into the  
 Alrethra, but as the Alrethra in Married  
 Women seems to come out from the vagina you  
 may not find it by the former Directions in  
 this case you introduce your finger into the  
 Vagina & bring it outwards to its former  
 situation & by the former Directions you'll  
 easily find out the Alrethra, then you pass  
 the Catheter gently forwards & not turn  
 it round in the passing it as some do, but  
 straight forwards: The Catheter is changed  
 from what it was, it formerly had only two  
 long slits which when it was introduced into  
 the Alrethra, the pressure of the parts upon  
 the Catheter forced the inside of the Alrethra  
 into the slits & tore the inner Coat which  
 caused the blood to follow & pain to the patient  
 but the Catheter used now has a number of  
 small holes in it & by this we may sound a  
 Woman 30 or 40 times in a quarter of an  
 hour without giving her the least pain.  
 This last Catheter may be used in some  
 cases

Cases as where there is a great Inclination to make water & is done with great difficulty & the desire is so frequent as every eight or ten minutes w<sup>ch</sup> if not then evacuated is very considerable pain to the patient. therefore may introduce the Catheter into which is introduced a Stiletto adapted exactly to the cavity w<sup>ch</sup> will prevent the bad consequence mentioned. then you'll fix the Catheter into the Urethra by tying ribbons to two Rings w<sup>ch</sup> are at its Top & tying them about the Body, & when she has any Inclination to make water the Stiletto can be withdrawn.

For the stone in the Bladder in Women the treatment is the same as in Men w<sup>ch</sup> by performing the operation of

### Lithotomy

We know with more certainty when a stone is in the bladder of a woman than a Man by the catheter for as the Urethra is short and straight we can easily touch any part of the bladder with it, but in Men the Urethra is long & curved & if the stone is lying under the neck of the Bladder the catheter will not reach it, altho a stone is into the Bladder

of

\* vide P. 99



Bladder of a man we may sound him several times without feeling it. The throwing liquors into the Bladder in order to dissolve the Stone is more practicable in women than in men & this is done with little or no pain to the Woman & therefore may be tried; but if the Stone is not dissolved by this means then we must have recourse to the Operation.

Some have endeavoured to Dilate the Urethra by Sponging Tents &c. being introduced into it but besides this giving a considerable pain for some time w<sup>ch</sup> it would take before it was sufficiently dilated, the patient would labour under an Incontinence of Urine for some Years. therefore cutting the Urethra is more advisable; for this various Instruments have been contrived, Mr. Bomb has invented a knife for the Operation in Men which has been used here. the knife is concealed in a Groove & in this manner you introduce it into the Bladder, then you open it & pull it out & as the knife opens more or less at pleasure, you thereby can make the Dilatation according to the largeness of the Stone; Mr. P. P. has

invented



Invented another Instrument which differs little from the former only it has two knives concealed. Likewise there have been several other Instruments invented for this purpose. Some people have advised to make the Incision on the outside as in Men, but this is more Dangerous than in Men for the Uterus or Rectum is apt to be cut & it is more Dangerous than cutting the Urethra allowing this not to happen. The High Operation is the same in Women as in Men, but the least danger is in cutting the Urethra (which is not long) & neck of the Bladder, & I know no Instrument so fit for this purpose as the Common cutting Forceps for by introducing these Combs Instrument such a length into the Bladder as it opens most at the point you may happen to cut the body of the Bladder; & the same objections may be given to the other Instruments & the most simple way is to introduce the Forceps into the Urethra which only cuts it & the neck of the Bladder & upon the Forceps you slide along a pair of Forceps & extract the Stone in the common way

Imperforatus

## Imperforated Vagina.

The orifice of the Vagina is in a manner shut up by spongy Substances w<sup>h</sup> are about it which hinder the Accession of the Air these Spongy substances are described under the name of Caruncula Myrtoiformes as they were thought to resemble Myrtle Leaves. They thought that the breaking of a membrane which is called <sup>after</sup> Hymen formed itself into them, but the Hymen is very little & if the Caruncula were owing to its breaking there would never be any, so they are quite different. It sometimes happens that the Vagina is entirely shut up by the Hymen so as not to allow the Menstrual flux to flow, this is no inconvenience until the Girl arrives at the age of Puberty when the Menses flow, then it is retained and accumulated in the Vagina, so at last it will press upon the Rectum & bladder by becoming so bulky, causing pain in going to stool & cannot retain the Urine so long as common & sometimes a pain & difficulty in passing it, when the Girl has these symptoms you will

still cannot be certain that this is the disease  
 until you examine her. The cure of this is  
 quite simple & is attended with no danger, you  
 cut the membrane with a knife & you know  
 when you are deep enough by the flowing  
 of the blood then you withdraw your Instru-  
 ment. you are not here to expect to see the  
 blood coagulated as there is no accession of  
 the Air to it, but it will be of a black pithy  
 color; some recommend here a single In-  
 cision others a crucial, but it is a matter  
 of Indifference which of them you use.  
 In Dressing it some recommend superficial  
 Dressings others Dressings to prevent it from  
 closing again as they say. but there is no  
 danger of this, & the Dressings will prevent  
 any of the pithy matter from coming a-  
 way unless in the time of dressing. I  
 think the best method is (& what I have  
 practised on three or four patients) to apply  
 no Dressings to it at all, only to wash it  
 frequently with warm milk & water to  
 carry off the pithy matter, & in two weeks  
 the patient will be perfectly recovered.

Laceration



### Laceration of the Perineum.

I have said that it receives great stress in Delivery & is stretched often to two Inches by it, whereas it is commonly only about one in length, so that there is often a Contusion of it by Delivery w<sup>h</sup> causes an Inflammation & by the flowing of the Lochia prevents us from taking notice of it & thereby often ends in Suppuration, but it very soon heals; A Laceration of it is known by a smarting pain every time they make water indeed there is commonly a pain in making water after Delivery, but it does not continue above a Day or 26 hours but in this case it continues long after that time, if the Laceration is with little Inflammation it may be soon cured with Common dressings; When there is a total Rupture this is more dangerous & sometimes the Rectum is hurt along with it, this is difficult to be cured, some have recommended it to be cured as in the Hare lip to stretch the ruptured pieces together - This I imagine may answer pretty well.

The



The Bladder is sometimes torn in deli-  
 -very & sometimes by the long pressure  
 of the Childs head against the bladder caus-  
 -es a mortification of a part of it; the me-  
 -thod of distinguishing between these two  
 is that in a Laceration they cannot retain  
 their water, which they can do in a morti-  
 -fication, but when the mortified piece  
 falls out they are then unable to retain  
 their water, if you examine the water  
 you see the mortified piece which they r-  
 pass & thereby know the largeness of the  
 wound; both these cases are difficult  
 of cure but the mortification is the most  
 difficult; you may try the length of the  
 Laceration by introducing the Catheter  
 into the Bladder & finger up the Vagina  
 by which means you'll find the length  
 of the Laceration. For the cure we must  
 endeavour to take away the Urine as  
 soon as it arrives in the Bladder in order  
 to allow the Lacerated parts to unite, I  
 have tried for this purpose a flexible  
 catheter, but it did not answer so well as  
 the

as the Stone run along the sides of the batheter, I tried a Metal batheter, it again hurt the patient: indeed this is a case we can do very little in. I imagine if we could introduce any thing up the Vagina so as to keep the parts contiguous to the Laceration & allow none of the water to escape by it, a cure may be sooner expected & I think the Bladder of an Animal introduced into it & blown up may answer this purpose. but this is a thing I never tried but is only a conjecture.

The Uterus is often found double & by this we can explain Superfetation with sometimes happen as a person being delivered within 2 months of one another & which I presume is owing to there being a Double set of parts, sometimes there is one Vagina & two wombs & at other times there are 2 Vaginas & two wombs & by this superfetation may be better explained than in any other way.

The Ovaria are liable to many Diseases they sometimes contain Foetuses, there is

is an instance of a fetus of four months old being contained in one of them; I saw a woman dissected, we perceived a large Tumor in one of the Ovaria which when opened we found the Jaw of a Child in which was some full grown Teeth.

We have instances likewise of Fetuses being in the Fallopian Tube, but the Fetuses in the Ovaria or Fallopian Tube never come to perfection or above the fourth month.

The Ovaria is subject to Dropsy & next to the Ascites it is the most frequent dropsy that happens, as both these Species are of the Ado-  
-men it will be necessary to make a Distinc-  
tion, if the swelling is in the lower part of the  
Belly & to one side of it, if it happens after a  
Difficult Labor & if you introduce your fin-  
ger in the Vagina & feel the Ovarium swelled  
& perceive a fluctuation in it. then we are  
certain that it is a Dropsy of the Ovarium,  
it is cured in the same way with the Ascites  
by performing the operation of the Paracen-  
tesis. I saw a case of this species of Drop-  
sy, an Incision was made into it & a great  
quantity



quantity of nasty stuff came away. I could not reach the bottom of it with a probe & therefore threw in an Astringent mixture by which means it was soon cured.

The Uterus is liable to Polypos. The difficulty of extracting them is often from their shape when the base is very broad & arising from the bottom of the womb you cannot put a Ligature about it. The Uterus is likewise liable to all the Diseases which Muscular parts are subject to as Scirrhus Tumors & Cancer when these happen in the Uterus we have no symptom by which we can know that they are present untill by their bulk we can perceive them; we know very exactly when there is a Scirrhus in any of the Viscera when very small by the effects w<sup>ch</sup> we know they produce on the System as the Liver which is a secretory Organ by the Interruption of the Secretion, but there is no Secretion performed in the Uterus & therefore we cannot know them untill they become so large as we may perceive them & therefore we can give nothing to prevent them. The

The Method of Extracting Polypus. Various Instruments have been contrived by Authors for this purpose - One much used is a pair of forceps with holes in their points. you make a noose on the middle of a string & put an end of it thro' each hole in the point. then you introduce it & endeavour to get the noose over the Polypus which is often very difficult & sometimes Impracticable; when you get the Noose over the Polypus you separate the handles of the Forceps by which you straiten the noose, this noose will become loose in two days and therefore we must put about a second one & then it will drop off in a Day or two. When this method is practicable a degree of danger attends it, for if you put the noose too high you may take in a part of the neck or body of the Uterus & therefore I would lay aside these Instruments altogether & I see no use for them as it can be done as well & safer without them: the best method is, as the vagina is so short, you can introduce your hand take hold of the Polypus & pull it gently & downwards & may bring safely the mouth to the mouth of the Vagina & then put on the noose.

J

I shall now speak of  
Generation

In order to find out how much each of the sexes contribute to the formation of the fetus we must have recourse to Exp<sup>ts</sup>. & for all the Inquiries of many Great Men this subject is still remains in obscurity & perhaps ever will remain so; What makes the difficulty of ascertaining the share each of the sexes have in the formation of the fetus is that Animals of different Genera will not couple together as a Horse will not bull a Cow or a Bull will not cover a Mare. for the parts of Generation in the different Genera have no effect upon one another. Both vegetables & Animals require a diversity of Sexes, those Animals who want local motion generate in the same way with the most <sup>common</sup> species of vegetables. Vegetables may be divided into 3 different sexes the Hermaphrodite, Male & Female. The Hermaphrodite which includes the most part of vegetables are such are are possessed of the Organs of both sexes. The Male has  
 organs



organs analogous to the Male of Animals  
 & the Female analogous to the female, so that  
 if you take away either the male or the female  
 the plant will not generate that Season —  
 what is called the Filamenta is the Male part  
 which at a particular time sheds a farina or  
 Dust which falls upon what is called the Pis-  
 tillum or the Female part & impregnates it:  
 & even in the vegetable kingdom it is only par-  
 ticular species that can impregnate one ano-  
 -ther, thus there is a Glass of Linneus called  
 the ~~Monogaea~~ <sup>Monogaea</sup> which produce both male & female  
 from the same plant & the female can only be  
 impregnated with the male of the same species  
 there is another Glass called the Dioclea  
 which is either a male or female only. the Palm  
 Tree is a species of this. there was a Male Palm  
 at Berlin & a female at Leipzig but the female  
 never bore Dates until a branch of the male  
 was brought & hung over it which impregnated  
 the female & it then brought forth Dates, thus  
 in vegetables a Diversity of Sexes is necessary  
 for propagation; the Water plants are  
 impregnated by the water carrying along  
 the male farina to the female; we see the  
 same

same take place in some Animals thus on a  
 hive of bees there are two or three females two  
 or three hundred males & all the rest hermaphrodites  
 by which they propagate a great many in a  
 short time; those animals who are Hermo-  
 -phrodites cannot impregnate themselves -  
 thus there are a great many Insects who are  
 of this kind as snails, they do not impregnate  
 themselves but when two meet they impreg-  
 -mate one another; there are various ways by  
 which Animals propagate their species thus  
 into whatever number of pieces you cut the  
 Polypus you produce as many Animals, -  
 others altho you cut off any part of them they  
 grow again as the Star fish whose food is -  
 chiefly Oysters. when they see them open go  
 to eat them, the Oyster to preserve itself shuts  
 upon them & takes off some of its members, which  
 soon grow again. Monfr Vandermon recom-  
 -mends crossing the Reed for the propagat-  
 -ing of Animals; this is practised on vegetables  
 & is commonly done with the Corn in this -  
 country we change the seed often for if the  
 same <sup>kind of</sup> seed is thrown into the same ground  
 often, it degenerates & Monfr Vandermon  
 is

is for transferring this to Animals & to the human species or to cross the breed, he says that it is owing to this that there is a better race of people in large Towns than in Villages as there are people of various nations in them & they intermarry whereas in villages there are few people & they always marry with one another; but I differ greatly from him for I think the contrary is true for the people in country villages are stouter than those in large Towns. We do not know whe-

ther the formation of the Fetus depends mostly on the Male or Female; some lay the greatest stress on the Male. Thus a great deal of money is given for a Leap of a good stoned horse, a Gentleman in England lays out stress both on Male & Female he not only keeps fine stoned Horses, Halls, Rams &c for which he gets a great sum of money for the Leap but he keeps fine cows, Mares <sup>ewes</sup> Sheep &c for which he gets a great sum for their Loan in order to get their breed. I shall now mention the several systems of Generation.



1<sup>st</sup> Is that entertained by Hippocrates & with the most  
 Ancient; he thought that generation was owing  
 to a mixture of the Male & female seed, he was led  
 to this by the Ovaria which he thought secreted  
 a liquor analogous to the Semen in the Testes  
 of Men & thought that there <sup>were</sup> vessels from the  
 Ovaria to the Uterus w<sup>ch</sup> were called the Vasa  
 Deferentia & that in the time of Copulation  
 a liquor was poured out of the Ovaria into  
 the Uterus by these vasa Deferentia & was  
 mixed there with the Male seed; but there  
 are no such vessels as the Vasa Deferentia  
 & what goes under that name are nothing  
 more than Ligaments connecting the Ovaria  
 to the Uterus; he was likewise led to this con-  
 sideration by the resemblance of the Fetus to  
 the Father or Mother & whatever Imperfections  
 either the Father or Mother have the Fetus gene-  
 rally have them. Thus if the father or Mother  
 have not come to the full time, the Child very  
 often likewise does not come to the full time;  
 & likewise when a black Man couples with  
 a White Woman or white man with a black  
 woman we find the Child is Tawny; and  
 the same thing happens in other Animals. thus

thus we often see a bitch have puppies half a  
hound half mastiff owing to the bitch being  
a mastiff, when not being lined by a hound.  
there is an Instance of a mare foaling a mule  
& a horse at the same time, owing to her be-  
ing covered by a Horse & a Jack Ass. like-  
wise he was led to this from the Evacuation  
which some Women have in the time of Copu-  
lation. but this happens in a few women  
only & those who have it not are impregnat-  
ed as well as those which have. Therefore  
you see there are objections to this System.

2 To that of Aristotle; he was preceptor  
to Alexander the Great who was very fond  
of Natural History & was curious to know  
how Generation was performed, he gave orders  
to Aristotle to enquire into it & furnished him  
with money &c in order to make Experiments  
but he made less progress than what one  
would imagine who laboured under such  
great Advantages, he denied the system of  
Hippocrates & thought that Generation was  
owing to the mixture of the Male Seed with the  
menstrual Blood, but if this was the case  
Women could be only made pregnant at par-  
ticular times when the menses were flowing  
although

which we find is not the case, & therefore this System is entirely laid aside.

Dr. Harvey & others endeavoured (about the middle of the last Century) to establish a better System, he tried many Expts on Different Animals & says that in all his trials he never found the Male seed in the Womb; Others again who tried the same Expts say that they did perceive it in the womb; he imagined likewise that the Ovaries were of no use & underwent no change by Impregnation; but we see very great changes in them after copulation. They are burst open & there is found a substance which was not there before called the Corpus Luteum; This substance is evident in the human Species but still more in some other Animals as Cows which in them is as large as a Cherry; by examination of the Ovaries after Copulation you'll find them burst open & can introduce a probe into them & according to the number of holes you can determine the number of Oviducts. Manfrotta says that the Corpus Luteum appears before Impregnation; but this is false for it cannot be perceived till after this time - Dr. Harvey says there is no appearance



=ance of the Rudiments of the Fetus for the first two months in Does w<sup>th</sup> is near  $\frac{1}{4}$  of their time. & there is no appearance in Rabbits for the first nine Days w<sup>th</sup> is about  $\frac{1}{5}$  of their time; In short he imagines that the Womb has the faculty of conceiving as the Mind has of thinking. — This opinion is very fanciful & improbable & thereby got few or no followers.

A Mon<sup>r</sup> Du Goraaf tried many expts to establish a system he confined himself chiefly to Rabbits as they go such a short time he examined them every 12, 24, 30, 40, & 48 hours, but did not find the Rudiments of the Animal in the Uterus, he thinks that conception is owing to the Ova in the Ovaries being impregnated by the Male seed & the Ovaries were in the time of copulation perforated & were embreled by the Fallopian Tubes which carried the Ovum to the Uterus. Magnaghius was so much convinced that this was the way that he confidently asserts it; but the Fallopian Tubes are unfit for such a purpose they are wide towards the Ovaries but open into the Uterus with an orifice that can  
 scarce

scarce admit a hogs bristle & it is not easy to conceive that the Ovary should pass thro' them into the Uterus. I should think that it would be stoppt in the Tube & thereby Extra Uterine fetuses would be more frequent than what they really are.

5<sup>th</sup> Suwenhoek. Andre &c examined the Male seed by Microscopes & found a great number of Animalcula floating in it, these Animalcula were so small that a grain of sand was equal in bulk to 50000 of them. They thought that these Animalcula was the rudement of the future Animal; & that they were carried to the Ovaries & afterwards brought to the Uterus; but can there be any thing more absurd than to think that of several million of Animalcula received by the woman no more than one, two or three should come to perfection. The rest should go for nothing. They likewise say that Generation did not always happen after Copulation, but that the semen may remain several days or weeks in the Uterus before it enters the Ovaria - hence altho a woman has not had communication with her husband for Ten months

Months before the Delivery of a Child, yet the Child may be her Husband's. but this is absurd, for if the semen remains a day or two in the Uterus it will become putrid & unfit for Generation.

6 Monsr Russon dissected many Ovaria & he says that the Glandular Body or Corpus Luteum exists before lying with a Man. he opened one of the Vesicles & found it contained a Liquor which he examined with the microscope & found the same Animalcula floating in it as is perceived in the Male Semen; he thought that these Animalcula formed the different parts of the Animal & when they were mixed together in the Uterus according as the Organic parts prevailed the fetus was Male or female & that the rest went to form the Placenta. These are the Systems formed of Generation. They are all attended with many Difficulties which cannot be explained, but it seems to me that Hippocrates's System which is the most Ancient is the most probable, as the fetus resembles sometimes the father & sometimes the mother a Mare & a Jack Ass will beget a Mule; the Ovaria contains vesicles.



vesicles, but that they are carried to the Uterus in an entire form I think is highly improbable. Imagine by the bursting of the Ovaria & vesicle the liquor is received by the Fallopian Tube & carried to the Uterus where it is mixed with the male seed & this accounts for Extra uterine gestations happening so rarely; it may happen sometimes that the male seed may go up further & mix with the female in the Ovaria or Fallopian Tube so that the Fetus will remain there. I shall now show

The size of the Fetus from its earliest period in its progress to the birth. It is impossible to ascertain the size of the fetus exactly in every period, for you find differences in the size of children when born, sometimes you'll find one child almost twice as big as another, so a difference will subsist likewise in the former periods; another circumstance which prevents us from knowing the exact size of the Fetus is that we are never certain of the beginning of a Woman's pregnancy & we cannot ascertain it with so much exactness as in other Animals therefore when a woman thinks she has gone

three

three months perhaps she has gone three months & a half or only two months & a half; likewise the Fetus sometimes dies & is perhaps some weeks or a month after this before it is expelled, it will then be as small as one that has not gone so long by two months; The Duckening of a Child happens about the fourth month, not but that I suppose that the Child has life from the beginning, but about the fourth month it becomes so strong, as to make motions which are perceived by the Mother & is therefore called quickening of the Child; From all these circumstances you see, it is impossible to ascertain the exact size of the Fetus at the different periods. You'll see in figures the size of the fetus as early as three days or a week, but those are all Imaginary, for there were never any seen so early, & in all figures of fetuses they are represented much larger than what they really are; Monsieur Buffon makes a fetus of one month to be 1 Inch, two months to be  $2\frac{1}{4}$  Inches, three months  $3\frac{1}{2}$ , four 5 Inches, five  $6\frac{1}{2}$ , six 8, seven 11 &c. He makes them too large & it is very difficult to meet with a fetus of one month, the youngest one I ever saw was five or six weeks old which is so small that

in order to view its different parts you must look thro' a Lens to it. Altho' it is not of great consequence to know the exact size, yet it is necessary that you should know as much as any other person so that when there happens an Abortion you may guess pretty nigh the Childs age; perhaps you may think that a fetus of three months old should be exactly  $\frac{1}{3}$  the size of a Child come to the full time, but this is not the case it perhaps is not the  $\frac{1}{10}$  part of it.

Instead of mentioning the Inches as many <sup>have done</sup> Authors I think a better Idea will be received by showing preparations of them in the different Periods. In all Fœtuses the head is about  $\frac{1}{2}$  of the Bulk & the Extremities & Pelvis in both Male & female are very small, the shoulders are twice as broad as the Pelvis. — The younger the fetus (if a female) is, the Clitoris bears a greater proportion to the Body, so that in a female fetus of six months the Clitoris may be taken for a Penis & a mistake in the sexes may be occasioned unless accurately examined.

The younger the Fœtus is, the Secundines are in a greater proportion this in a fetus of one month the Secundines will be 20 times larger than the fetus, but this proportion diminishes as



as the Child advances to Birth.

### Difference between the Fetus & Adult.

It has been a question among Physicians whether all the parts of a fetus are formed at the same time or some parts before others; the only way to find out this is to examine the Fetuses of Conspicuous Animals, where we can do it every 12, 24, 48 hours & see its progress; accordingly this has been done & it is found that some parts are formed before others & all the parts where large Nerves go to are formed first; the fetus when very young appears like two Vesicles, one of which is the Brain & the other the Spine, after their formation then the Abdominal & Thoracic Viscera appear even before the Abdominal Muscles & breast bone are formed so that in a fetus <sup>very</sup> young you will perceive them quite naked; We find two large Nerves go to the Eyes, so we perceive the Eyes large & jutting out very soon, & there are two considerable nerves which go to the Ears hence they are soon formed & before the seventh month are quite complicated I shall now show the Difference between the Fetus & Adult.

A Fetus when it comes to the full time is generally about 21 or 22 Inches in length, the head is larger in proportion to the rest of the body at

at birth than in any after period, at birth it is, about  $\frac{1}{3}$  of the whole bulk but in a full grown person it is scarcely  $\frac{1}{8}$  of his bulk. In a grown up person there are Tendons whereas there are none to be seen in a fetus, the difference between Tendons & muscles is that the muscular fibres in Tendons are more compacted, & the action of the muscles compacts them more, so in the fetus the fibres of the tendon are not much more compacted than those in muscles but by their action they soon acquire a Tendinous appearance. Another difference is the blood vessels in a fetus are more numerous than in an Adult, the skin on a fetus is redish by these blood vessels, but as they grow many of them are obliterated & the skin becomes whiter. hence when a Leech is applied to a young Child a greater quantity of blood flows than when applied to an Adult & hence the difficulty sometimes is stopping the bleeding in children; the vessels too in young Child are red & of a more muscular appearance than in the Adult, which in the last are whitish. Another Difference is in the Eyes. No Child when new born see any; some Physicians have endeavored to find out the cause of this & some ascribe it to the Aqueous humor being less in quantity than necessary, but this is not the case for the Eyes in New born Children are plumper than in

in any after period owing to a greater proportion of  
 the aqueous humor, as they advance in years the  
 proportion is less & the Eyes become flatter & the dim-  
 ness of sight in old people is owing to this, therefore  
 they use convex Glasses to make them see better.  
 therefore the blindness in new born Children is not  
 owing to this cause, but is owing to a dilatation  
 of the Pupil, when the Child is in the Uterus the  
 Pupil is at rest & the dilated state is its state of  
 rest & the rays of light make it contract, if a per-  
 son's pupil is dilated where there is light we  
 are sure he does not see, thus we know whence  
 Jutta Serena begins; by the pupil being dilated  
 or when the optic nerve is any way affected this  
 is the case we know that when a person has been  
 in a dark place for some time & goes suddenly  
 to a strong light he cannot see owing to the  
 pupil being dilated, & by examining the pupil  
 of a Child we find it is dilated, & it requires some  
 time before the pupil is used to contract by the  
 rays of light. Thus altho you take a candle  
 & apply it near the Child's Eyes, it will take  
 no notice of it. There is another peculiarity in  
 the Eyes of Children which is a membrane over  
 the Pupil, described by several Anatomists as  
 Haller Hunter &c called the Membrana Pupillaris  
 of.



if you extract the crystalline & vitreous humors  
 of the Eye of the fetus & look thro the Cornea you  
 will perceive this membrane, or by Injection you  
 may fill its vessels & thereby see it more plain.  
 We do not know the real use of it as it is gone be-  
 fore birth & it is best perceived in a fetus of six  
 months. Another difference between the Fetus  
 & Adult is in the Thorax, the Lungs in a fetus  
 before birth are in a Contracted state whereas  
 in an Adult they are always in a Dilated state,  
 but as soon as the Child is born the Air rushes  
 into the Lungs & dilates them - hence we know  
 when a Child has been still born or born alive  
 if we take a piece of the Lungs of a still born  
 Child & throw it in water, it will fall to the bot-  
 tom, but if the Child has breathed the piece of Lungs  
 will swim; this is an Expt that probably some  
 of you may try before Criminal Courts where  
 there is a suspicion of Child Murder; but we  
 are liable to fall into an error here, for if the Child  
 has been dead some time before birth it will  
 become putrid & the Lungs will swim in water;  
 the way we know when this happens is that if  
 the Lungs of a Child swim in water if it is pu-  
 trid the fleshy & Muscular parts will swim like-  
 wise, for when putrefaction comes on the small  
 quantity of Air which is contained in them becomes  
 rarified

rarified & makes the parts lighter than water & there-  
 by they swim; I have kept the Lungs of old born  
 children for a long time & untill they become  
 putrid & when thrown in water they sunk to  
 the bottom; but then this is not to say that putrid  
 Lungs never swim, it sometimes happens that  
 the Child is so putrid when born that it is three  
 times larger than it should be & in this case  
 the Lungs & muscular parts will swim in water.  
 Another difference is that in children there is  
 a large Glandular substance that lies imme-  
 diately above the Great vessels that come out of  
 the Heart, which as they advance in Age it be-  
 comes always less untill in Old Age it is entirely  
 gone, this is called the Thymus & consists of  
 two Lobes a long one & a short one, part of it  
 is without the Thorax but the greatest part is  
 contained within it; We are in the Dark as  
 to its use, we find upon squeezing it contains  
 a Milky Liquor. The next difference is in the  
 Heart. There is a hole between the right and  
 left Auricle of an oval figure & therefore  
 called the Foramen Oval, it is in the partition  
 between the right & left Auricle by which the  
 blood flows from the right to the left Auricle  
 but on the inside of the left there is a valve  
 which

which prevents the blood from flowing from the  
 left to the right Auricle. This foramen is shut  
 up a short time after birth, indeed there are  
 some cases of its not being entirely shut up in  
 Adults & even in some old people. it is entirely  
 open. The next difference here is that in the  
 Fetus there is a canal between the pulmonary  
 Artery & Aorta. In the Adult the pulmonary  
 Artery divides into two branches one going to  
 the Lungs on one side the Thorax & the other to  
 the Lungs on the other side, each of these are  
 again subdivided; but in the Fetus the Pul-  
 monary Artery divides into three, one going  
 to the Lungs on each side the Thorax & the third  
 goes to the Aorta which is called the Canalis  
 Arteriosus. This after birth is shut up as no  
 fluids then flow thro it & vessels soon shut up  
 if no fluids flow thro them. I have found in  
 Puppies that it is always shut up 24 hours  
 after birth. The next difference is in the  
 Liver. The Liver of an Adult possesses the  
 right Hypochondrium but in the fetus it  
 takes up both the right & the left Hypochon-  
 drium. & the younger the fetus is the Liver is  
 in a greater proportion, larger.  
 There is a Difference in some of the vessels. There



77  
There is a large vessel which comes from the  
Placenta, pierces the Navel, runs to the bot-  
tom part of the Liver & ends in the Sinus of the  
Vena Portarum; this is one Difference as this  
vessel after Birth is formed into a Ligament;  
As that vessel or Umbilical vein ends in the  
Sinus of the Vena Portarum, the Blood car-  
ried from the Mother to the Fetus must ne-  
cessarily pass thro' the Liver, but as such a  
great quantity of Blood might have been apt  
to have stoped the circulation in the Liver  
entirely & likewise it was necessary that this  
Blood should go sooner to the Heart than by  
undergoing the circulation of the Liver. Nature  
has therefore provided them with another vessel  
which goes out of the Sinus of the Vena por-  
tarum where the Umbilical vein enters, it  
runs across the Liver & enters a large vessel  
called the Vena Cava, as this vessel which is  
called the Canalis Venosus is not much smal-  
ler than the Umbilical vein, the greatest part  
of the Blood brought by the Umbilical vein to  
the Sinus of the Vena Portarum is carried  
immediately by the Canalis Venosus to  
the Vena Cava which carries it to the heart  
the remainder undergoes the circulation  
of

of the Liver & then goes to the vena-cava & from thence to the Heart: This Canalis Venosus is shut up immediately after Birth.

Another Difference in the Blood vessels is. There are four Arteries, two External & two Internal, in the Adult the two External are the largest & the two Internal the smallest; in the Fetus they are the reverse, the two external are the smallest & the two Internal the largest. The Aorta seems to divide into 4 which are the Places the two external infuses are, smaller than the two Internal or Umbilical Arteries — hence a reason why the lower Extremities in Fetus are smaller in proportion to the rest of the Body than in any after period of Life: the two Umbilical Arteries run along the Bladder, one on each side & go out at the Navel, twisting round the Umbilical Vein & go to the Placenta.

The next remarkable difference is in the situation of the Testes. In the Fetus the Testes are lodged within the Abdomen & the younger the fetus is the further up they are, they are lodged without the Peritoneum about the sixth month they are in the Abdomen, but fall always lower & lower & there is a production of the Peritoneum like a funnel thro which they fall to the Scrotum, after which it shuts up and seems

seems to be distinct from the Peritoneum & to be a coat to the Testicles; in some Animals there is a communication between the peritoneum & vaginal coat as it is not shut up, but there is no communication between them in the human Body & as a proof of this we often find a great quantity of water in the Abdomen & none in the vaginal coat & water in the vaginal coat & none in the Abdomen: likewise in <sup>in adults</sup> *Hernia* the Intestine does not fall within the Vaginal coat so as to be in contact with the Body of the Testicles; but on the outside of the vaginal coat; indeed sometimes this particular species of Rupture on which Mr Pot has wrote a Treatise on the congenial *Hernia* happens but then it is only in young Children; In a Fetus of 7 months the Testicles are then so far advanced as to be without the Abdominal Muscles & entering the vaginal coat, & in the 8 month they are into the Scrotum. We do not know the reason why they should be in the Abdomen in the Fetus. Some have thought that it was in order that these very tender parts should not be hurt in Delivery which is very apt to be done at that time, but it cannot be this for the Testicles are into the Scrotum before Birth. The only reason that can be given is that in the young fetus the pelvis is small & by that means the Thighs are close together so that there is no room for them or if they were there, may be apt



apt to be hurt, when about the 8 month the Thighs are at such a Distance that <sup>they</sup> go into the Scrotum with safety. The next difference is, that in the Fetus there is a Twisted Canal which runs between the Two Umbelical Arteries, upon the Bladder, goes to the navel & ends in the Umbelical Cord, it is called the Ureachus, this is seen in the human fetus but better in the Fetuses of other Animals; what the use of this in the human fetus is unknown for altho you press the Bladder of a Child you will not make a drop of Urine enter it, in Brutes it is more Distinct & the use of it more clear for in them there is a Bag at the navel called the Allantois & the Ureachus goes from the Bladder & enters it, so the Urine is conducted from the Bladder to the Allantois by the Ureachus. The Bladder in a Fetus is much more oblong than in the Adult.

These are some of the most remarkable differences between the Fetus & the Adult, some of them we do not understand & cannot explain, others are intended to make a Difference in the Circulation of the Blood of the Fetus from the Adult. Nature saw that the Circulation could not be performed in the same way in the Fetus as in the Adult; in the Adult the whole of the blood is sent to the Lungs to receive

receive some Improvement there, which would be unnecessary to be done in the Fetus. as there is no Air in their Lungs to make the necessary alteration, which if it was the case most Children would be suffocated in the womb of their mother. I shall now describe the

### Circulation of the Blood in the Fetus.

The whole blood is carried from the Mother to the Fetus by the Umbilical vein which begins in the Placenta with an ~~as~~ great number of small vessels, which join together to form it; it pierces the navel, runs to the hollow part of the Liver & ends in the sinus of the Vena Portarum, so the whole of the Blood is lodged in the sinus of the Vena Portarum & in the Adult all the Blood which enters this sinus undergoes the Circulation of the Liver, which if this was the case in the fetus it would be attended with Danger as such a great quantity of Blood circulating thro' the Liver may produce a stagnation of it & besides nature intended that this Blood which had lately received some improvement in the Lungs of the Mother should be conveyed by as short a way as possible to the Heart of the Fetus. therefore there is a canal which goes out of the sinus of the vena Portarum where the Umbilical vein entered.

called

called the *Vena Omphalos* which runs across the Liver & enters the *vena Cava*, this vessel is almost as large as the Umbilical vein & therefore it carries the most of the blood brought in to the sinus of the *Vena Portarum* by the Umbilical vein into the *vena Cava* which carries it immediately into the heart, & the remainder of the blood left in the sinus of the *Vena Portarum* brought by the Umbilical vein, circulates thro' the Liver & goes into the *vena Cava*.

The *Vena Cava* carries all the blood to the Right Auricle, but as in *Fetus* it would be unnecessary & inconvenient to carry all the blood to the Lungs as it can receive no improvement there as it does in the Adult. there is an opening between the right & left Auricle called the *Foramen Ovale*, so that about a half of the blood which is in the right auricle goes into the left Auricle by the *Foramen Ovale* & the other half goes into the right Ventricle. but as this would be still too great a quantity to go into the Lungs, the Pulmonary Artery instead of dividing into two as in an Adult divides into three Trunks, one of which enters the Aorta, so on the contraction of the right ventricle the blood is thrown into the pulmonary Artery but the half of it goes by that vessel



vessel which enters the Aorta called the Canalis Arteriosus & the other half goes to the Lungs by the Pulmonary Arteries, & according to my calculation (which I do not mean to be exact) no more than  $\frac{1}{4}$  of the Blood of the Body goes to the Lungs, the Blood is returned from the Lungs by the Pulmonary Veins to the left Auricle, from the left Auricle to the left Ventricle & from that to the Aorta which distributes it to all the parts of the Body<sup>a</sup>. The Circulation of the Blood thro' the heart in an Adult is quite different from this, the Blood is carried by the Vena Cava to the right Auricle, from the right Auricle it goes to the right Ventricle, from that to the Pulmonary Arteries & is distributed thro' the Lungs, which is returned by the Pulmonary veins to the left Auricle, from that to the left Ventricle & from that to the Aorta which distributes it to every part of the Body. So the most material Difference between the heart of a Fetus & Adult is in the first there are circumstances which prevent a quantity of Blood from entering the Lungs. — After

<sup>a</sup> Doctor Monro differs a little in his Calculation from Dr Young he thinks that when the Blood is carried to the right Auricle that  $\frac{1}{2}$  goes by the Foramen Ovale, & when it is propelled out of the right Ventricle that  $\frac{1}{2}$  goes by the Canalis Arteriosus. therefore one

After the blood has gone thro the body of the Fetus, it is returned by the Umbelical Arteries, one of which runs along each side of the Placenta to the navel & pierces it & twists round the Umbelical vein & terminates in as small branches as the Umbelical Vein began with & there is a communication between the branches of the Umbelical vein and Arteries, for if an Injection is thrown into the Umbelical Arteries, you may inject the Umbelical vein — The reason why the Extremities are smaller & Pelvis shallower in ~~children~~ children (whether male or female) than in any after period in proportion to the rest of their body is that the blood is carried away by the Umbelical Arteries which after Birth become smaller & the Extremal Vessels which are at this time small become larger, & thereby carries a greater quantity of blood to the lower Extremities. Having now shown you the size of the Fetus in its progress to Birth & the Difference between the Fetus & the Adult & the Circulation of the blood thro' the Fetus, I am naturally led to show you —

The

one third goes to be distributed to the Lungs. —

The Changes the Uterus undergoes by preg=  
=nancy.

The first is with regard to its size, an unimpreg=  
=nated Uterus is not above three Inches from the  
Bottom to the mouth, & from side to side about  
two Inches or  $2\frac{1}{2}$ . but between the eight & ninth  
month of pregnancy it is in bulk between 40  
& 50 cubic Inches; the Bottom of the womb gives  
way first & is stretched then the neck & the orifice.  
if you examine a woman gone with Child three  
months, you'll not know whether she is with Child  
or not. for here the bottom of the womb is only  
Dilated. the neck & the orifice are in the same  
state as if unimpregnated, we may judge by  
the weight of it, but the weight of the Uterus is  
not great at this time as the fetus is small &  
likewise an unimpregnated Uterus may some=  
=times seem a little weighty by being pressed  
upon by the neighbouring parts, indeed by the  
Uterus at this time being a little weighty &  
some symptoms concurring with it, we may  
guess her to be with Child; but when she is fur=  
=ther advanced we may know at first sight, for  
between the 4 & 5 month the neck of the womb  
stretches & becomes shorter & the orifice becomes  
Bulky



bulky & soft: & by examining her, the weight  
 of the Uterus. the shortness of its neck & bulge-  
 ness & softness of its orifice will make us deter-  
 mine almost with certainty; but the further  
 she has gone in her pregnancy, the more cer-  
 tainly can we Determine, so about the seventh  
 month you'll feel the orifice of the Uterus like  
 a ring, but no neck. Before I mention any  
 more of the Changes of the Uterus I shall apply  
 this to Use. It is chiefly by feeling that we  
 can determine whether a woman is pregnant  
 or not, & this Determination is often very  
 necessary, for you'll sometimes meet with wo-  
 men who have some symptoms of pregnancy  
 & others contradictory to it, if you think it a  
 Disease & her to be pregnant, & as such con-  
 fine her to bed & you may do her harm or  
 if you say there is nothing the matter with her  
 & yet to be pregnant, by her going about her  
 usual business perhaps hard Labour, she  
 will be ready to miscarry; now we deter-  
 mine whether or not she is pregnant by the Exter-  
 nal Touch & the Internal Touch.  
External Touch, We Determine a woman  
 not to be with Child if there is no circumscribed  
 hard

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hard Tumor in lower part of the Abdomen (al-  
tho her Belly is a little bulky) & if upon pressure  
of her Abdomen even almost close to her back  
it gives her no Uneasiness, we may be sure  
she is not w<sup>th</sup> Child, for in women that are preg-  
nant there is a circumscribed hard Tumor  
in the lower part of her Abdomen & if you  
press it, it gives her great uneasiness as by  
the pressure you Dilate the Uterus.  
Regard must be likewise <sup>had</sup> to the Wult there  
should be, at different times of pregnancy  
thus if a woman suspects herself to be six  
months gone with Child & is no bigger than  
one of three months we may be uncertain, but  
if you find a Distinct hard circumscribed Tu-  
mor & uneasy to her upon being pressed we  
may be sure she is with Child unless other  
circumstances contradict it as the person  
being 60 or 70 years of Age &c. The Uterus  
between the 4 & 5 month is above the Os Pubis,  
about the sixth month half way between the Os  
Pubis & Navel, about the seventh month it  
reaches the Navel, in the eight month half  
way between the Navel & Scrobiculum Cordis  
& in the ninth month it reaches the Scrobi-  
culum Cordis; this most commonly happens  
but

but this depends upon the structure of the Woman, if she is of a very broad make over the Pelvis & above it, at the ninth month the Uterus will not reach above the Navel, therefore regard must be had to this.

Internal Touch. Introduce one or two fingers into the Vagina; some recommend the Introducing two fingers as they say by doing so we may learn things which we could not do with one, but as the introducing of two fingers may give pain & you can learn as much with one finger as two, it will therefore be better to introduce only one; Now whether shall we use the fore or middle finger? As the middle finger is the longest it has been recommended as you can reach the Orifice of the Uterus easier, but as the middle finger is confined by the others, you will reach as far with the fore finger if not further, & you ought to accustom yourselves to do it with the fore finger of either hand. For this purpose you put the Woman in a proper position, she may either stand upright, sit on her knees or by in bed, in common boxes it is better to do it in bed, but if in this way you cannot rightly reach the Orifice of the Vagina, in this & other difficult cases the Upright position is better, for the



the Uterus by its weight comes further down &  
 you may feel with more accuracy & reach the  
 Orifice of the Uterus easier. As it is the common  
 position of the woman to ly in Bed & especially  
 with the Gentler sort of people. now whether  
 shall we touch them before or behind? It is better  
 to do it from behind especially in the Gentler sort,  
 make them ly on their side with their back to  
 you. then you endeavour to find out the Orifice  
 of the Vagina, you must not do this hastily as  
 you may hurt the Woman & she will entertain  
 a bad opinion of you altho you be expert in  
 your Business & according to your doing this  
 so is their Judgement of you. therefore you must  
 do this as cautiously & gently as possible, you  
 take both your hands & separate the Labia -  
 gently, put a little fresh Butter or Pomatum  
 upon the point of your fore finger, then move  
 it slightly from before backwards untill you  
 feel the Orifice of the Vagina & slip your fin-  
 ger gently into it. if the membranes are already  
 broke the pomatum upon your finger will  
 become unnecessary, or if you are accus-  
 tomed to do it, you may make it unnecessary as  
 I can do it without any without giving pain.  
 As you will be accustomed to do it in the  
 Informary

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Informary when the woman lies on her back  
it will be a little Difficult to do it when she lies  
on her side, but after doing it once or twice it  
will become quite easy. It will sometimes hap-  
-pen that you'll not be able to reach the mouth nor  
neck of the womb & thereby you can learn nothing  
by the Directions that I have given before concer-  
-ning the Touch, but altho you cannot reach the  
Neck, yet you'll be able to touch some part of the bo-  
-dy of it, & when you do you may judge whether  
or not she is pregnant, for whatever part you touch  
it is the most depending part, you raise the Uterus  
with your finger by which you'll know its weight  
& give it its Sore, but in this case it will likewise  
be necessary to apply the External Touch, that we  
may be the more certain. Sometimes the neck of  
the womb is lying upon the Os Pubis & sometimes  
on the Os Sacrum & according to which of these hap-  
-pen so the Touch from behind or before is the most  
preferable; if the neck of the womb lies on the Os  
Sacrum it is best to touch from behind, you intro-  
-duce your finger up the Vagina & when you come  
to the mouth of the womb, as the fore part of your  
finger will be to the Os Sacrum & the nail of your  
finger will be directed to the Uterus which is the  
most natural way of introducing the finger from  
behind

behind. after you reach the womb by your finger in  
this Direction you turn it in the nail to the Os Sac-  
rum & the fore part of your finger will be towards  
the mouth of the Uterus. by this way you can judge  
better: when the neck of the womb lies on the Os Pu-  
bis it will be best to touch from before. you must  
not introduce your finger horizontally up the  
Vagina in this case, but you must carry up your  
finger as if directed to the Vorn of the Os Pubis & you  
can do it with your finger easily then you will be  
sure to reach the neck, but if not easily, you can—  
put your other hand upon the Womans Belly & press  
upon it by which you will force the Uterus further  
down & can know with more certainty. Sometimes  
you will not be able to touch the neck of the womb  
nor any part of it, in this case our only way left us  
to judge is the External Touch, if the is five or six  
months gone you may feel the bottom of the Uterus  
very Distinctly thro' the Teguments. In your  
first trials of this operation you may often mistake  
the mouth of the Uterus. a part of the womb may be  
worn thin, perhaps about the bigness of half a Crown  
by the pressure of the Childs head, which you may  
take for the mouth of the womb, but if you carry  
your finger a little further forward, you will feel  
a small part like a ring about the bigness of a  
Shilling which is the mouth of the Womb. but a  
little



little practice will make you perfect in this. —  
Another Advantage received from the Touch  
is that you know in what manner the Child pre-  
sents, whether the head or any other part of the  
Body; if it is the head you need give yourselves  
no uneasiness as it is the best way that it can  
present; & altho the womb is open'd no more  
than the breadth of a supence if the head presents  
I know it plainly, by its roundness, smoothness  
& hardness & if I press upon it with my finger I  
am sensible of the bones yielding, so I can dis-  
tinguish the head from any other part. but then  
I cannot tell what part of the head presents  
by this small part whether the Os Occipitis or  
the Os Parietalia; but this is a matter of Im-  
difference; you may know if the head presents  
by the Touch a month before Delivery when the  
mouth of the Womb is not open, by feeling thro  
the neck the smoothness, hardness, & roundness  
of it & you may be sensible of the bones yield-  
ing upon pressure, but the more open the  
womb is with the more certainly can you deter-  
mine; The only part which has a resemblance  
to the Head is when the Child comes Double or the  
Buttock presents, but then the Buttocks are more  
soft

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soft, but sometimes they may become hard by  
the pressure, but then it is more unequal than  
the head & by pressure you are not sensible of  
bones yielding as in the Head; but when the  
membranes are broke if the Buttocks present  
you will find the Meconium or when you with-  
draw your finger you will see a blackish  
matter upon it which is the Meconium, like-  
by pulling your finger into the womb & making  
as great a circle upon the buttocks as you can  
with your finger you may feel the parts of  
Generation of the Child; the Extremities can be  
easily distinguished from the other parts of the  
Body, but it is most difficult to know whether  
it is a Leg or an Arm, but this is of no conse-  
quence. but you may distinguish them by  
the fingers being longer than the Toes & when  
further advanced by the shape & size, the Arm  
is smaller than the Leg; the Child may present  
in many other ways as the Back, Shoulder, -  
Forecast, Belly &c. When the Back presents &  
the womb is opened only about the breadth of a  
Shilling. you introduce your finger & describe  
as large a circle upon the Child as possible by  
which

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which you may feel the back bone, if the shoul-  
-der presents, by using the same method you  
may feel the Arm or neck, if the breast you  
may feel the ribs, if the belly you know it by  
its softness & by feeling the Umbilical cord, by  
these marks the one part may be distinguish-  
ed from the other.

Another Advantage received from the Touch  
is that by it we know whether the pains are  
True or False. Women going with their first  
Child often give false Alarms, when they have  
any slight pains. The false pains are of two kinds  
The one when there are pains of the Colic kind  
which may sometimes be fixed in one part  
but these are easily known; The other kind has  
a greater resemblance, that altho they have  
pains like the True ones yet they have no effect.  
E.g. a Woman in the Infirmary some time ago  
was for three Days in violent Labor she had  
been blooded & taken Laudanum which did  
not in the least ease her, I saw her on the second  
day & put her to the Touch & found the mouth  
of the womb quite shut. I then knew they were  
false & ordered her a larger Dose of Laudanum  
which eased her & she went three weeks after  
wards before the true pains seized her.

Always



Always suspect those pains to be false which come on before they are arrived at their full time, or those that come on with an evident cause & without making progress or those that do not Dilate the mouth of the womb; so in these pains if we put them to the Touch & do not find the mouth of the womb Dilated & that the Head of the Child does not press against the mouth of the Womb, we may be sure they are false & we must therefore support her as much as possible & use Bleeding Injections & Laudanum which will ease her.

Another Advantage from the Touch is that by it we discover some Diseases, I have mentioned them before as Polypii Scirrhus and cancerous Tumors &c. when they are in the mouth or neck of the womb, or vagina, we can easily discover them by the Touch. but when the arise from the Bottom of the womb we cannot <sup>discover them</sup> by the Touch untill they become very Bulky & large so that they may extend to the neck or orifice of the Womb or by its weight we are sure there is contained in the womb something preternatural.

I come

Come now to mention another change produced on the Uterus viz Its thickness or thinness. Physicians have had disputes whether the Uterus by impregnation becomes thick or thin. The Arguments that they have used in prove of its becoming thinner are -

1<sup>st</sup> From the analogy of other parts - thus the bladder by being Distended becomes thinner & also the Stomach by being Distended w<sup>th</sup> a full Diet

2<sup>d</sup> The motion of the Child being so plainly felt, which if the Uterus became thicker they say could not happen: but this is owing to the parts of the Abdomen being stretched more than usual, & by the Distention the motion is more easily communicated to the external parts, thus in an Ascites when the Belly is much Distended you'll be sensible of the least fluctuation of the water by putting your hand upon their Belly, likewise when the Segments are Distended they become thinner therefore this accounts for the plainness of feeling the motion of the Child.

3<sup>d</sup> The Uterus is sometimes ruptured; but if the Uterus was as thin as they say the Uterus would

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would be ruptured much oftener than it really happens. As to its becoming thicker one is very liable to be deceived, for if you examine an Uterus two or three hours after Delivery, you will find it three or four times thicker than an unimpregnated Uterus & this has made some think that the Uterus becomes thicker by being impregnated, but in this case the Uterus has contracted a good deal & in proportion as it contracts it becomes thicker, but if you examine the Uterus of a Woman who has Died before Delivery & before the membranes break & there to be no flooding, the Uterus is found to be of the same thickness as in an unimpregnated one; the Uterus contracts immediately after the membranes break & as it contracts it thickens in proportion, but when it contracts to its utmost. then it gradually becomes thinner untill at last it becomes the same as before. The Uterus is sometimes thick in some parts & thin in others which is owing to the Childs head pressing upon the Uterus & makes that part thinner. Women are very often worse in delivering a Child when not come to the full time than when come to the full time.



time, for in the first case the neck of the womb is not so much dilated as in the last, therefore it will require a greater exertion in the bottom of the womb to overcome the resistance which the neck gives in the first case, as the resistance in the first is greater than that in the last by not being so much dilated.

Another Change produced in the Uterus by Impregnation is the great size of its blood vessels, if you examine an unimpregnated Uterus you cannot see the blood vessels in them they are so very small & if you examine the internal membrane you'll find it very smooth & a few small perforations in it: But the vessels in an impregnated Uterus are very large the internal membrane is rough & unequal & the veins much distended especially where the Placenta is attached to, there are Serpentine Arteries which end in the Veins and are small in proportion to them; if any of these arteries are Injected, the veins may likewise be filled thereby. The great size of the vessels of the Uterus makes it thicker in the impregnated state than what it really would be. Another change on the Uterus when impregnated is the Addition of a Membrane which drops away after Delivery & shall be spoke of afterwards.

These

These are some of the most remarkable chan-  
 ges produced on the Uterus by impregnation.  
 I shall now speak a little of the Catheter w<sup>ch</sup>  
 you had used upon a Living Subject lately -  
 The Catheter you used had a number of small  
 holes which is better than having two large slots  
 as it gives less pain to the patient, for altho the  
 Catheter was used more than 25 times upon the  
 same woman in less than a quarter of an hour  
 yet she had no pain from it. the Catheter I use  
 is straight w<sup>ch</sup> answers as well or rather better  
 than if there was a crook in it - When you have  
 once entered the Catheter into the Urethra you  
 must neither push it upwards nor downwards -  
 but straight horizontally - you may often  
 meet with greater resistences than what you  
 met with in that woman - as there may be a  
 straitness of the neck of the bladder, but if you  
 meet with this you may use a little force by w<sup>ch</sup>  
 you will overcome it - Sometimes when endeavour  
 the head of the Child may press against the neck of  
 the bladder, so that you cannot introduce the Ca-  
 theter & you cannot easily push back the head  
 of the Child, but it is seldom necessary in this case  
 unless in a Difficult Labour, when they have  
 been

been 48 hours in Labour & you cannot deliver her by the common method so that you must use the Crochet; & by the Child being so far advanced so as to press upon the neck of the Bladder or Urethra so that she has not made water. In all that time, you must draw off the water from the Bladder before you use the Crochet in order to make more room. therefore you must push back the Child & free the neck of the Bladder of its Compression & then introduce the Catheter. — This is a Digression. I shall now speak of

### The Placenta

The Child is connected to the Mother by means of the Placenta; or after birth, & has got this name from its resemblance to a Cake & the fetus of every animal has a placenta; whether they are viviparous or Oviparous; in the last the yolk answers the purpose of the Placenta; there are great varieties in the form of Placentas. The Graminivorous Animals have placentas of the same form among themselves but different from the human. The Oviparous Animals have placentas different from the two former, & the Multivorous Animals have placentas different



different from all the former. In the *Gravida* =  
*inivorous Animals* or those who chew the cud  
 there are a great number of placentas as the  
 Cow who has between Sixty & seventy placentas  
 & in the *Ecu* there are rather a greater number  
 altho they have but one fetus. In the *Multipa* =  
*rous Animals* as the Sow, Cat, Kitchag, there is  
 a placenta for every fetus, but in the human  
 body altho there are two fetus's they have no more  
 than one placenta. The placentas of *Carni* =  
*vorous Animals* differ from those of any other  
 Animal; but I shall have occasion to speak  
 of the different forms of placentas of Different  
 Animals afterwards, & I shall confine myself  
 at present to the *Human Placenta*.  
 There has been great disputes among *Physici* =  
*ans* about the formation of the placenta. Dr  
 Simpson thinks that whatever part of the *Cho* =  
*riion* comes in contact with the *fundus Uteri*  
 that that part is formed into the placenta & the  
 fetus when very young is as it were covered  
 with placenta again he says that in *herbifer* =  
*ous Animals* there are a great number of  
 glandular substances in their wombs so that  
 whatever part of the *Chorion* comes in contact  
 with

to these Glandular bodies that these parts are  
 formed into placentas & according to the number  
 of Glandular bodies that adhere to the Chorion, so  
 is the number of Placentas; but Dr Simpson is  
 mistaken, for the placenta does not always ad-  
 here to the fundus Uteri in the human body  
 but to various places of it, sometimes the back  
 part, sometimes the fore part, sometimes the  
 neck & even sometimes the Orifice of the Uterus;  
 We do not know the Origin of the placenta, but  
 I can say that it is not in the way that Doctor  
 Simpson says. The Placenta is of a round form  
 & of different sizes in Different Women & in the  
 same Woman at different times; it is not in pro-  
 portion to the size of the Child, for sometimes a  
 small Child has a large Placenta & a big Child  
 a small placenta; but it is commonly about  
 seven or eight Inches in Diameter; if you in-  
 -ject its blood vessels you would think that  
 it is composed of them entirely, but if you look  
 narrowly you will perceive a substance wh.  
 I cannot give a name to, resembling a param-  
 -chymatous substance, which makes up a con-  
 -siderable part of it; you may deceive people  
 by making them think that it is entirely made  
 up of vessels, by after injecting them allowing  
 this

allowing this parenchymatous substance to putrefy & then nothing will remain but vessels.

The Placenta has two sides or surfaces, the one is unequal & seems to be composed of many placentalles; it is it which is connected to the Uterus & these inequalities of the Placenta answers to other inequalities of the Uterus, so by this the Placenta adheres more firmly to the Uterus; the other surface which is next to the Child is quite smooth. The Placenta may be divided

into three different parts viz the Cake, Umbilical Cord & the Membrans. The Cake is thickest in that part where the Umbilical Cord is fixed & grows gradually thinner to its edges.

The Umbilical Cord is composed of three vessels in the human Species, but in Rrutes is composed of four viz two veins & two Arteries, but in the human species a large vein & two Arteries, this vein arises from small branches in the Placenta it pierces the navel & runs to the hollow part of the Liver; there sometimes appears like knots upon the Cord which is owing to the vessels being distended with blood by a compression being made on them.

The two Arteries come from the Aorta & runs upon



upon the side of the Bladder pierces the Navel  
& twist round the Umbilical vein & ends in  
as small vessels in the placenta as the vein —  
began with & the small Arteries & veins com-  
municate with each other, so that if you throw  
an Injection into the Arteries you will fill the  
Veins; The structure of the Umbilical Arteries  
is different from any other Artery in the Body  
they are not so easily compressed as any other  
Artery & are exceedingly Elastic; the intention  
of this is very obvious, as this Cord is very  
apt to be compressed by it being twisted round  
the Child &c which if it did not possess any  
more Elasticity than the other Arteries & was  
as easily compressed the Blood would be im-  
mediately stop'd & the Child would soon Die; we  
know how difficult it is to compress them —  
when we tie the Umbilical cord after delivery  
for we cannot tie a string so tight about it  
but what it will bleed some Drops, therefore  
the Umbilical cord must be tied very tight  
if not the Child may lose its life. the great  
degree of Incompressibility & Elasticity which  
these Arteries possess is owing to them receiv-  
ing coverings from the membranes & also  
there

also there is a Gelatinous substance interspersed between the membranes which adds greatly to their Elasticity. The Umbilical Cord is of different lengths, generally about three quarters of a yard, the use of such a great length is to allow the Child to pass with more ease, for we see when the Cord is twisted round the Child so as to make it shorter, we cannot deliver it until we have freed the Cord from the Child. The Umbilical Cord is attached sometimes to one part of the Placenta & sometimes another it is sometimes attached to near its edge & sometimes in the middle, when the last is the case it is very difficult to come away, as when you pull the string is equal upon every part of the placenta which is attached to the Uterus, - thus if you take a round piece of Leather & fix a string to its center & after moistening the leather to clap it upon a stone, you may raise the stone by the string, but if the string is not fixed to the center but to one side, it will easily come away & you'll not be able to raise the stone by the string; therefore when the Umbilical Cord is attached to the middle of the placenta it is more difficult to come away, & if you pull  
 rashly

rashly you may pull the bottom of the Uterus outwards or Invert it: but the Cord is seldom attached to the middle of the Placenta, lies most commonly about  $\frac{1}{2}$  from its <sup>edge</sup> ~~surface~~, in order to come away more easily.

The Membranes are two viz: the Chorion and Amnios. The Chorion is the external membrane & Augustin says it is composed of two Coats; one which he calls Filamentosa because it is attached to the Uterus by small threads or filaments, but this does not belong to the Chorion, but is a membrane which belongs to the Uterus & grows on its inside & falls off after Delivery. The Chorion has a great number of vessels both in the human Species & in Beasts, so that you cannot put down the point of a pin without touching some of them; you may see this by examining the Chorion of a Chick when it is come a good length, where you'll see them distinctly; The Chorion is so contrived as to line the inner part of the womb - The Amnios lies within the Chorion & lines the whole of it; they are so close together that they seem to be one membrane, unless you take a blow pipe & blow between them, then you will perceive that they



they are two membranes; on the Amnios there  
 are very small vessels in the human species  
 but greater in Horses; when you examine the  
 membranes the Amnios is the ~~Out~~most as they  
 are inverted, for that side of the Placenta to  
 which the Umbilical cord is attached is the  
 Inner side, but when the placenta is pulled  
 away it becomes the outermost. These mem-  
 branes sometimes comes away in large por-  
 tions & sometimes large portions come away  
 with the Child & cover its whole head so after  
 Delivery they must be immediately taken away  
 to allow the Child to breathe. These membranes  
 are very tender so that one would think that  
 they would easily break by the least strips of  
 the mother; but they are not so easily broke  
 as one would imagine & there is a very good  
 reason for it, the Chorion exactly fits the inter-  
 nal membrane of the Uterus, so that if there is  
 any stress it is upon the sides of the Uterus & not  
 on the membranes, E.g. if you take a bladder  
 & fill it with air & surround it with leather very  
 exactly & altho you kick it up & down you will  
 not break the bladder untill you first burst  
 the leather, as the whole of the stress is upon the  
 Leather

Leather. so this is the case with the Uterus.  
 But since this is the Case how does it happen  
 that these membranes break before Delivery?  
 The Reason is this, the natural consequence of  
 the pains is to dilate the mouth of the Uterus so  
 when it dilates that part of the membrane which  
 is opposite to the mouth wants its support & as  
 the resistance is less here the membranes will  
 dilate & become thinner & will soon break.  
 In the human Species there are only two  
 membranes but there are three in Murines  
 viz a bag called the Allantois additional.  
 It is a Reservoir for the Urine & it grows  
 larger & contains more Liquid according  
 to the Fetus growing older it has a commun-  
 ication with the Urethrus which last has  
 a communication with the Bladder so the  
 Urine is conducted from the Bladder to the  
 Allantois by the Urethrus; In a Mare it  
 is about eight or ten feet in length & at each  
 extremity there is a Contracted point, in each  
 of which there is a fleshy substance called  
 Hypomeres, the Ancients thought that these  
 fleshy substances were to be found in Mares  
 only & was thought a strong poison see  
 Cuvier in his 6 Satire. Mon<sup>r</sup> Debarton  
 has

has found these fleshy Substances in the contractile extremities of the Allantois of every Animal & is nothing but the sediment of the Urine. These membranes contain more or less a quantity of water, commonly between 20 or 30 English pints; Various have been the opinions about its origin. Some think that it is the Perspirations of the Fetus, but if this was the case the quantity of waters would encrease according to the encrease of the fetus which we find is not the case, for there is a greater quantity of water about the fourth or fifth month than afterwards. Others think that it is the Urine of the Fetus, but this is not the case for we find it in great quantity before the Urinary Organs are formed, likewise it is in greater quantity about the fourth or fifth month than afterwards & in cases where the Urinary passage has been shut up, the water was in as great a quantity as usual. It is probable, that this water undergoes a Circulation, that it is deposited by particular vessels & taken up by others & in proof of this when the membranes break in the time



time of pregnancy the water will flow for some weeks constantly, owing to the water as soon as it is Deposited running off, but I never saw a case where after the membranes broke & the water flowing for weeks but what they always miscarried, I have had three cases of this one had the flowing of the water two weeks before she miscarried, the other three weeks & the third six weeks, so when you meet with a case of the membranes being broke & water flowing for some days & the membranes not seeming as if they would shut up then you may be certain of her miscarriage; sometimes altho the membranes break if they dry up they will heal & the person may go some months after this.

This Water is of use both in the time of Pregnancy & Delivery.

1 In the time of Pregnancy. When the fetus is small & tender, the least compression will hurt them, so the water defends them from any compression or hurt & we find that the younger the fetus is the quantity of water is in a greater proportion to their size than afterwards, indeed it would be very inconvenient

nient if the water increased in proportion as the fetus grew. indeed the person could not contain it all, but when the Fetus becomes older & stronger there is not any occasion for a proportional quantity of water of what it had before as it will not be so easily hurt. It also prevents the Fetus from passing to the mouth of the womb & irritating it which would produce its Expulsion.

2 It is of use in the time of Delivery. When the Membranes break, it does not flow out all at once but slowly, thereby it lubricates & softens the parts & makes them stretch better so as to allow the Child to come forth with more ease.

There has been another use ascribed to this Liquor by some viz that it serves to nourish the Fetus. but I will have occasion to speak of this afterwards.

### Of the Placenta in Brutes

These Animals who chew the Cud have a great number of Placenta as the Cow, who has a great number of Polydons or Glanular substances in their Uterus & from each of these there is a placenta which grasps it firmly; the placenta of a

of a Lamb are more numerous than in a Sow  
 which in the last are in number about 60 or 70.  
 Altho in the Animals who chew the Cud there are  
 a great number of Placentae to one fetus yet in  
 Multiferous Animals there is only one placen-  
 ta to every fetus, the placenta of a puppy re-  
 sembles very much a knot, the placenta is in  
 the middle & the membranes at each end, a mouse  
 has a placenta of the same form & has one for  
 every fetus. By looking at the Uterus of  
 any Animal you'll easily know where the pla-  
 centa has been attached, by the largeness of the  
 blood vessels. In some Animals the placen-  
 ta has not so much the appearance of a fleshy  
 substance but is thin like a membrane.  
 this is the case in a Mare & in a Sow.  
 Thus much for the variety of the Placentae in  
 Animals. I come now to show you  
 In what manner the Placenta is connected  
 to the Uterus. This has occasioned many  
 Disputes among Physiologists & Anatomists  
 there are two opinions & which of them is the  
 right is the right cannot be easily determin-  
 ed, I cannot indeed decide this Dispute.  
 The two different opinions are



1. Some imagine that the vessels of the Placenta anastomose with the vessels of the Uterus and thereby a circulation is carried on between the Placenta & Uterus.

2. Others think that the vessels of the Uterus & Placenta did not anastomose but that the Placenta being a filamentous substance absorbed liquors from the Uterus.

I shall give you some of the strongest Arguments for each of these opinions & then we shall determine which is the most probable & I shall begin with giving Arguments for the

1. That the vessels of the Uterus & Placenta anastomose with one another.

1<sup>st</sup> They say that there must be a communication of the blood vessels of the Placenta with the Uterus as there is a flooding after Delivery. But it is easy to show that there may be a flooding after delivery & yet no communication of vessels. I showed you that the veins at that part of the Uterus where the placenta is attached are greatly distended & that the Internal membrane of the Uterus is perforated in many places & the veins communicate with these Perforations, so that while the Placenta

Placenta is attached to the Uterus no blood can flow from these orifices as the placenta shuts them up, but after the placenta is taken away the orifices are open so that they bleed freely if these orifices would continue patent for some time every woman would be in Danger of dying of the Hemorrhage as these orifices are very large immediately after the Placenta is taken away, but this is prevented by the Uterus contracting as soon as its contents are expelled & by the Contraction of the Uterus the orifices are shut up. Therefore the Flooding after Delivery is no Argument in proof of the vessels of the Placenta & Uterus anastomosing with one another.

2<sup>d</sup> By Anatomical Injections. This is the best way for proving the Communication between these vessels & preparations have been made of the vessels of the placenta being filled by injecting the vessels of the Uterus, but however these preparations are seldom to be made. Mr. Cowper says that he throw Mercury from the Epigastric Artery into the Umbilical vein; others have thrown mercury from

from the Carotid Artery into the Umbilical vein which is much the same, &c. Some by infecting the Uterus have filled the vessels of the Placenta & others by infecting the Placenta have filled the vessels of the Uterus; Albinus says that he has seen the small Serpentine Arteries of the Uterus terminate in the Placenta & says that he has often traced them from the one to the other, & Dr Hunter has made preparations where the Placenta is infected by infecting the vessels of the Uterus. This therefore is a very strong Argument in favour of the vessels of the Placenta anastomosing with the vessels of the Uterus.

3<sup>d</sup> There is no instance of any accretion between two Bodies, in the Animal Body but by means of blood vessels. The accretion of the Skin to the Muscles is in this way, that besides the cellular Membrane which is between them there are a great number of vessels which go from the one to the other. This likewise is a very strong Argument in favor of the vessels anastomosing.

4<sup>th</sup> By cutting the Umbilical Cord a greater quantity of blood will come away than what



what the Umbilical Cord could contain, but you never have an Opportunity of Examining this, for it never happens but that after the Delivery of the Child the Uterus contracts & so great is its contraction that not one drop of <sup>supposed</sup> blood but what was contained in the Umbilical Cord. so if you suppose that the Umbilical vessels could contain five ounces of blood, no more than five ounces would come away; It is by small vessels that this anastomosis is formed so that a very small contraction will stop them. Therefore this that is advanced never happens.

5<sup>th</sup> The vessels of the Child have been found empty in those Cases where the mother has died of hemorrhages. Now there has been various accounts of this matter. Dr. . . . says he says a Woman in her sixth month died of a rupture of a large vessel in her abdomen & when he examined the Child there was not a Drop of blood in it. There are again Cases quite opposite to this, that altho the mother died of a hemorrhage the fetus was full of blood; I once cut off the head of a Bitch with puppies & I found the puppies had as much blood as usual. Therefore there

there can be nothing deduced from this Argument. The only Arguments of any force for this Opinion are the instances of the placenta being filled by Injecting the Uterus and vice versa, & likewise there being no instance of the Accretion of substances in the human Body but by means of Blood vessels. —

I shall now give the Arguments for the 2<sup>d</sup> Opinion viz<sup>t</sup> that there is no communication between the vessels of the Uterus & Placenta and thereby no Circulation between them.

1<sup>st</sup> The vessels in the impregnated Uterus are of a great size & if these communicated with the vessels of the Placenta it would very easily be discovered. But this Anastomosis is not by these large but very small vessels.

2<sup>d</sup> By the former opinion if you feed an Animal with Madder the Bones of the Fetus should be tinged with, which they say does not happen; but here the one does not follow the other & Physicians have been divided about this, some say that if the Animal is fed with madder, the bones of the Fetus is tinged by it. Others again say that the bones are not tinged. Therefore this Argument proves nothing.

3<sup>d</sup> They say that if the former Opinion was true the Placenta would not be so easily separated from the Uterus; but they do not consider that the force of the Uterus is very great for by its contraction the placenta will be separated from the Uterus, by it separating the vessels. Therefore this argument has no weight.

4<sup>th</sup> They say that if the former opinion was the Case, the Fetus should die as soon as the Mother, but they say this is not the Case for the Child may live hours after the Death of the Mother; this is not the Case for the Child dies soon after the Mother & there is no Case well vouched of the Child living any time after the Death of the Mother. Therefore this Argument is of no Use.

5<sup>th</sup> They say that if the former opinion was just the Placenta when it comes away should be covered with Blood; but this proves nothing for the vessels are small & by the contraction of the Uterus they are stop't & any that may be on it, may be taken off by passing from the Uterus. Thusi are the Arguments on both sides, therefore it would seem that there is a communication between the vessels of the Uterus



Uterus & Placenta or a Circulation of blood carried on between them by their small vessels anastomosing with one another.

I shall now Consider the Use of the Placenta.

One Use is to absorb Liquors from the Uterus & to make it fit nourishment for the Fetus. It is hardly possible that the Placenta should be so large if it was only to carry blood from the Uterus to the Fetus & likewise we find a paranchymatous substance in it which makes the most considerable part of it and certainly this substance must be of some use, we may be taught to think so by considering the great resemblance to other parts of the body thus in the Liver there are a great number of blood vessels & likewise a paranchymatous substance which secretes the Bile. & the Kidneys have a great number of blood vessels interspersed thro' them & also a substance which separates the Urine, so we may conclude that this Paranchymatous substance is of some use that it absorbs Liquors & changes them into proper nourishment: Where the placenta is attached to the Uterus the veins are large & there are perforations

perforations of the Internal membrane which the  
 veins have a communication with & in which  
 they pour Liquors which is absorbed by the Pla-  
 centa & made by it fit for nourishing the fetus.  
 This appears more evident by examining other  
 Animals. for if you squeeze the Colydocs of a cow  
 a milky Liquor will come out. Why this you  
 may account why any sudden accident befall-  
 -ing the Mother does not affect the Child. the  
 reason seems to be because it does not hinder  
 the Placenta from absorbing the Liquors &  
 changing them into proper nourishment;  
 & in the same way you may account for a  
 healthy stout Child being delivered by a wo-  
 -man labouring under a Chronic Disease.  
 Perhaps it is in this way that we explain why  
 a Child lives a little <sup>time</sup> after the Mother Dies. as  
 the Placenta may absorb Liquors when the  
 Woman is Dying & change them. but when  
 there are no liquors to absorb the Child will  
 soon Die. We may likewise account why  
 the vessels of a fetus are full of Blood when  
 the Mother Dies of a Hemorrhage, as it is only  
 small vessels of the Uterus & Placenta that  
 anastomose together & the Blood will not  
 be

be drained from the Child by taking it from the Mother, but the Child will soon Die when there are no fluids for the Placenta to absorb. We know that it is necessary for our health that we should have supplies of new Chyle & the younger we are the quicker our supplies must be as the Demands are greater. Thus we see a Child on the Breast must suck every little while & when in the womb it must have quicker supplies, therefore if any thing will interrupt the preparation of the fluid fit for the Nourishment of the Child for a short time the Child will Die. Therefore it would appear that this spongy substance of the Placenta absorbs Liquors from the Uterus changes them into proper nourishment for the Child & is then carried to the Fetus by the Umbelical Vein & this is its principal Use. This leads me to consider how the Child is nourished in the Uterus, there have been two Opinions entertained of this viz by the Umbelical Cord or the Mouth, you may see both these opinions carried to a full length in the 1<sup>st</sup> & 2<sup>d</sup> Volumes of the Edin<sup>g</sup> Medical Essays. But it is certain that the Child is nourished by the Umbelical Cord for  
we



we have no Instance of a Child being born without the Umbelical Cord but we have Instances of Children being born wanting the mouth & there is a great presumption that the Fetus cannot swallow in the womb & I have opened many Children but could never see any of the Liquor Amnii in the Stomach & Intestines; The Late Dr Monro took the Uterus of a Cow which contained a fetus, made a small opening & filled it with milk then he pressed the Uterus in order to press the milk into the Stomach of the fetus, but when he opened the fetus he found no milk in it & hence he concluded that the Fetus in Utero could not swallow, but there is a Difference between the Dead & Living Animal & I do not doubt but that sometimes the fetus may swallow this Liquor. but that it nourished by it is very Absurd. Therefore the Fetus is Nourished by the Umbelical Cord.

I shall now speak of

### The Nature of the Menstrual Flux

This is a subject which altho Curious & important yet no light could ever be thrown upon it by Anatomists & are not yet thoroughly acquainted with the Structure of the Uterus (This is peculiar to the human Species alone); so little do we know of this subject

Subject that we do not know whether the blood flows  
 from the Arteries or veins of the Uterus. Dr Astruc  
 something in the Structure of the Uterus which he  
 ascribes the Menstrual flux to; he says it is easily  
 seen in the Uterus of a Woman by w<sup>th</sup> Child by r  
 tating of the Internal Membrane. he says be-  
 tween the Anastomoses of the Epigastric Artery  
 & Veins there were vessels which he calls Venæ  
 Appendices which when distended opened their  
 mouths & poured the blood into the Cavity of the  
 Uterus & likewise there were Vermicular or Mil-  
 ky vessels which separated a milky liquor from  
 the Uterus, & they have a Reservoir from which  
 there is an Excretory Duct which perforates the  
 Internal Coat of the Uterus & deposits at times  
 the Milky liquor into the Cavity of the Uterus &  
 there are Lymphatics in that reservoir which ab-  
 sorbs the finer parts of the milk & carries it to  
 the Chyle. By this structure he explained the  
 Menstrual flux, that the Venæ appendices  
 required sometime before they could be distended  
 & when distended they poured the blood into the  
 Cavity of the Uterus.

Altho

Altho we know so little of the nature of the Men-  
 -strual flux yet it is necessary for a person prac-  
 -tising Midwifery to know as much about it as  
 any other person. Therefore I shall now treat of it.  
 The Menses appear at the end of every Lunar Month  
 or 28 or 29 Days; Physicians differ about the  
 place they come from, some say from the Vagi-  
 -na because there are instances of women who  
 were hanged having the Cavety of the Vagina  
 filled with Blood & the Uterus free of it; others  
 say that it is from the Uterus for by dissecting  
 women who have died under their Courses, a  
 quantity of blood has been found in the Uterus;  
 the Flux sometimes comes from the one & some-  
 -times from the other, but oftener from the  
 Uterus; I have shown that the Epigastric Ar-  
 -tery which goes to the Uterus & vagina Anas-  
 -tomose with one another so when the vessels of  
 the vagina are Distended & break, it prevents  
 any flow from the Uterus & all goes by the ves-  
 -sels of the vagina. hence women who are  
 pregnant & the mouth of the Uterus shut up  
 have sometimes a flow of the Menses, as it  
 may come from the Vagina. Women,



Women in Warm Climates menstruate sooner than those in Cold Climates; in this they begin about the 13<sup>th</sup>, 14<sup>th</sup>, or 15<sup>th</sup> year, but in Warm Climates about the 9<sup>th</sup> or 10<sup>th</sup> year; the Climate has a great effect upon the flowing of the Menstrues & the colder the Climate is the longer they are in beginning to flow & the warmer they flow thus the Women in Lapland have not their Menstrues above twice or thrice a year. In those who begin early as the 9<sup>th</sup> or 10<sup>th</sup> year, they leave them soon, about the 30<sup>th</sup> or 36<sup>th</sup> year & in those that they begin about the 13<sup>th</sup>, 14<sup>th</sup> or 15<sup>th</sup> year have them longer, till the 45<sup>th</sup> or 50<sup>th</sup> year. Those who have many Children they leave sooner than those who have few. They generally return every 28<sup>th</sup> or 29<sup>th</sup> Day, in some it returns in three weeks, but then they are in a Diseased state, but when healthy it is every Lunar Month. In their Duration they are likewise very variable in those people who are strong stout & healthy they are shortest about two or three Days but in tender Delicate Women they will continue 7 or 8 Days. The quantity evacuated at each time is likewise Different in Different Women. We are uncertain as to the quantity, Hippocrates says that it is commonly about  $\frac{1}{2}$  oz at a time.

& some of the Moderns have thought the same as Dr Friend, he says that there are  $\text{℥xx}$  accumulated in the Uterus every Day w<sup>h</sup> at the 28<sup>th</sup> Day will amount to  $\text{℥xx}$  to be evacuated; what the quantity is in these warm Climates I cannot say, but here it does not amount to  $\frac{1}{4}$  of that quantity, in a healthy person it is not above  $\text{℥iii}$  or  $\text{℥iv}$  & very seldom it is  $\text{℥v}$ , but it is not easy to ascertain the quantity as the way we know is by the number of cloths wet, & in the strong Robust women who have thick blood altho they menstruate the same quantity with a Delicate woman who has thin blood yet she will not wet so many cloths for in the first the blood clots upon & does not go thro' & in the other the blood runs thro' & makes a great show. The Ancients too thought that it was the worst of the blood w<sup>ch</sup> was evacuated & therefore thought them healthy - but this is a mistake for it is the same with the rest of the blood of the body.

I shall now give the opinions of different authors of the Cause of the Menstrual Flux.

The most ancient Opinion is that they thought the Moon had an Influence on Women & caused them as it returned at the end of every Lunar period.

period, this was not only the Opinion of the Ancients but likewise of a Modern Lord Dr Mead see his Treatise entitl'd *De Imperio Solis & Lunae*, but if this was the Cause Women of the same Climate & Age would menstruate at the same time, but this has been tried in Nurseries where there are many Girls of the same age & yet they menstruate at different times, & we find Women Menstruate every Day of the Moon which would not happen if the Moon had any Influence. They likewise thought that the Moon had an effect on the Sexes & that Children were born at a certain time of the Moon but I have tried this in the Lying in ward in the Infirmary & kept an Account for some time but found that Children were born at any time day of the Moon & any Day of the Year. Therefore this Theory is very justly laid aside.

Another opinion is that it is occasioned by a particular Fermentation. About the beginning of the last Century they endeavoured to explain every thing upon Chemical principles & explained this by fermentation, as fermentation carries off all Impurities & bursts open vessels, but where this Ferment was lodged they could not say, some thought it was in the



the Uterus & others in the Ovaries &c  
 But they had no foundation for this Theory  
 A more general Opinion that prevailed is  
 that it was owing to a General Plethora ~~in the~~  
 And another is that this General Plethora  
 brought on a partial Plethora in the Uterus  
 These Opinions at present prevail & I shall there-  
 fore consider each of them & give the Arguments  
 for them & I shall consider!

### 1 The General Plethora

1 They say Women are weaker than Men & are  
 therefore more Plethoric, because in them the  
 Momentum of the Blood, <sup>is less</sup> there is not such a  
 quantity propelled to the Excretory & Secretory  
 vessels & consequently more retained in the  
 large vessels & therefore more plethoric.

2 Women use less Exercise than men & we  
 know that every Person becomes lighter by  
 Exercise, therefore they are more plethoric than  
 men. I shall answer these 2 Arguments.

The Human Body is in various states &  
 very changeable sometimes light & sometimes  
 heavier We know that every thing that pre-  
 vents the taking in of Aliment will prevent  
 this plethora from taking place; a woman of  
 a Sedentary Life had not such a great dis-  
 -charge by the Secretory & Excretory Organs  
 as best

A person who uses Exercise but then she  
 does not take in  $\frac{1}{4}$  of the Aliment that that  
 person does, therefore in order to prove a pletho-  
 ra they should compare the Ingesta with the  
 Egesta & in either case the Egesta be as great  
 as the Ingesta no plethora can happen.  
 Again we find the human Body is liable to  
 many Accidents to prevent this Plethora & yet  
 the Menses flow at the usual time. Thus a per-  
 son having an Acute Disease as a Pleurisy  
 after a flow of the Menses for which she is -  
 several times bled & other Evacuations used  
 yet if she recovers properly the Menses will flow  
 in four weeks afterwards. Therefore we can  
 scarce say that these Arguments can prove a  
 General Plethora & there is no Expt that can show  
 that Women are more Plethoric than Men, by  
 their Arguments females of all kinds are more  
 plethoric than the Males yet no Animal has  
 the Menstrual flux but Women.

3<sup>d</sup> They say that Women are generally at their  
 Acme before the Menstrual flux appears &  
 as there are fluids prepared for their increase  
 of growth, when they arrive at their Acme -  
 a greater quantity is prepared than what  
 there is occasion for & therefore there is a  
 superabundant

which abundant quantity of fluids which cause a general Plethora. But we see the contrary of this for a woman at 13 or 14 years of Age which is the time that they begin. They are so far from being at their height that they generally grow in length till 20 & sometimes past that time & grow in breadth till past 30. Therefore this Argument has no weight.

A They say that the Menses are generally wanting in the strong Robust Women who use a great deal of Exercise. But the fact is that those Women seldom want them, in them they are very regular in their periods & do not continue so long with them.

We cannot say that every Woman is plethoric, yet they all have their Menses if in health. We have many Instances of Local Plethora. Thus every Child has a local plethora in its breast, whether male or female you'll often find milk in their breasts two or three days after delivery which is owing to the tying the Umbilical Cord thro which a great deal of blood passed. This blood is re-  
-gurgitated into the Arteria Descendens & as all the blood cannot go to the Lower Extre-  
-mities until the External Vessels therefor  
1 2



a great quantity of blood is determined to the breasts; Women after Delivery altho there is a flowing of the Lochia yet in four weeks after the menses flow, the Lochia one would think would take of all General Plethora & women are liable to accidents at this time & lose a great quantity of blood by it. yet this does not prevent them returning at their usual time. There is another Local plethora which happens to women about the third day after Delivery that is milk in their breasts & which happens to every woman after Delivery & as this Local plethora happens in many parts of the body why not may we suppose the Menstrual flux to be owing to this Cause? It is not easy to account for this but I shall give all the Arguments w<sup>ch</sup> have been used to prove it.

1 They say the Local plethora happens because the Aorta Descendens is larger in Women than in Men - but if this was the Cause, when they begin to flow why should not they continue - while the person lives? likewise we see the same thing happen in other female Animals & yet no animal have menses except those of the human Species.

2 They say that this Plethora happens in the Uterus because the veins want valves, but there are many Veins besides those of the Uterus that want valves & why does not the plethora happen in these parts as well as the Uterus?

3 They say that another circumstance, which conduces to this Plethora is the plyableness & the laxity of the vessels of the Uterus, but this is not the case for they are as firm as any other vessel of the body.

4 They say that the Uterus is in the warmest part of the body & thereby a plethora will be induced there, but if a Thermometer was applied to any other Internal part you would find that the Heat would be as great there as in the Uterus. Therefore we cannot give Arguments to prove the Existence of this local plethora. — Some say that the Uterus is more lax & has more cellular Texture than any other viscus; but this is not the case for it is as tense as any other. — likewise that the Arteries are in greater proportion here than in any other part. but this is likewise false — likewise that the coats of the vessels of the Uterus are thinner than any other; but this is not the case, surely the coats are not so thin as the Plexus Chorioidei.

likewise

likewise they say that the largeness of the cavity in which the Uterus lies contributes to this Plethora; Indeed men have not so large Pelvises as Women but then the vessels in the Pelvises of a man have as much room as those in a woman & therefore this Argument is of no weight; if it happened that the vessels in the Pelvis of a man were confined, then this Argument might have been used. Therefore altho this may be owing to a Local plethora yet it cannot be proved. I shall now show Some Phenomena attending it & give the reason why the vessels did not transmit the blood untill a certain Age or show how the Menses do not appear untill the 13, 14 or 15 year. - We find that every part of the body requires a certain time before they come to perfection. Thus in young children there is the rudiment of the Teeth under the Gums, but they require a certain time before they become so hard as to cut the Gums & make their appearance; likewise the same with regard to the Seminal vessels in the Male, altho the vessels & Testes are the same from the beginning, yet it requires a certain time before they are fit to make that secretion which makes so great Changes on the system & this



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this does not happen till the 12<sup>th</sup>, 13<sup>th</sup> or 14<sup>th</sup> year.  
Therefore we may say the same thing of the  
Uterus that it requires a certain time before the  
vessels can be unfolded & distended with blood  
& thereby be burst open & no one can view the  
system but is sensible that some vessels re-  
quire a certain period before they can perform  
their office. What is the reason that when they  
are once begun they do not continue thro the  
whole of their life? Perhaps the final cause  
is that as the Menstrual flux is designed for  
the Generation of the Fetus & women when they  
become old they become unfit for this purpose  
therefore the Menses leave them that they may  
not become pregnant in an improper time  
of life. That the Menses have a great share  
towards the Generation of the Fetus I think is  
quite obvious & plain to every person I never  
saw a woman who never had her menses be-  
come pregnant I lately had occasion to exa-  
mine a woman who never had her menses.  
she was married & never had any children &  
was very healthy, I found her vagina  
was shorter than common & I had a presump-  
tion that she had no Uterus; indeed at some  
times happens that a woman may have  
three or four children one after another & she

she never have a flow of the Menses between them, after delivery but her giving suck and at the time that the Menses should flow, she become again Pregnant & stop their flowing & so on of the other Children. Therefore as the Menstrual flux is for the Generation of the Fetus, if they were to continue to flow thro Life, women may become pregnant at a very unfit Age for Delivering Children. This is only the Final Cause, but it behooves me to give the Efficient Cause of this. It is evident that when the Menses come on that some force is requisite to open the vessels - as in young women there is a great momentum of the Blood & the Solids are relaxed so that the vessels may be easily opened, but in a Woman of 40 or 50 the vis vita is lessened & consequently the momentum of the Blood is that it cannot be propelled into the small vessels as formerly, & the vessels contract & the Solids become more rigid than formerly & thereby give a greater resistance to the Blood, so by this means - there can be no accumulation of Blood or no Distention of the vessels of the Uterus; & when these vessels once Contract they cannot be again Dilated unless you bring back the Original Cause which Dilated them in the beginning

beginning with to encrease the vis vitae & to relax the Solids which is here impossible to be done. Other Questions may be considered with Why do the Menses stop immediately after Impregnation & why when the Child is further advanced & why when giving suck? It is not easy to account for the sudden stoppage of the Menses immediately after impregnation, for at this time the fetus is scarcely visible & it cannot require for its growth such a quantity of blood - I imagine that the blood in the vessels of the Uterus is somehow Determined to another part & in proof of this we find some Women are greatly disordered the Day after impregnation, even that soon, by such a stoppage. To account for the Menses not flowing when the Child is further advanced is quite easy, for here the placenta is attached to the Uterus which shuts up the mouths of the vessels of the Uterus. It is likewise easy to account for the stoppage of the Menses in Women who give suck, for here there is a great drain of milk from the Body by the Mammarys which prevents the blood from being accumulated in the Uterus; but when the



Discharge of Milk becomes smaller as happens about the 9<sup>th</sup> or 10<sup>th</sup> month after Delivery then the blood is accumulated in the Uterus & the Menses appear; Indeed some Women have their Menses in the time of giving suck owing to them being full of good blood & the Discharge of milk not preventing an accumulation of blood in the vessels of the Uterus.

There are a variety of Diseases which the Menses makes Women liable to, they are Distressed when long in appearing, when suppressed & when in too great a quantity. Women about the age of 14 or 15 are liable to a Disease called the

### Chlorosis

Called so because they have a greenish color. It happens when the Menses are longer than natural of appearing, or the Disease happens before the coming on of the Menses & while this Disease continues no Menses appear & it never happens after the menses once appear. I imagine the vessels of the womb are unfolded so as to transmit blood about the 13<sup>th</sup> year when Nature opens the vessels & the Menses come on, but

but when they are long in being unfolded they are distressed with a number of Disorders. I think the Chlorosis is owing to the blood being collected in the vessels of the Uterus. & as the action of the vessels cannot force it out, it is retained there & excites the nerves of the Uterus which bring on the train of Symptoms which accompany this Disease. The Cure would show that this is the Cause for it is effected by all those hot stimulating medicines which increase the action of the vessels so as to propel the blood thro' the vessels of the Uterus & cause a rupture of them. This Disease cannot be removed soon & if you attempt to do it suddenly, you may happen to do harm, as by giving great quantities of preparations of steel you'll not only produce an increase of the Circulation in the Uterus but in other parts & may cause a Rupture of some vessel in another part of the body: so if the Uterus does not come soon enough to its growth we must have patience for it will take two or three months & sometimes longer before we can effect a Cure: This is done by every thing which increases the momentum of

of the blood as Aromatics, Gently Stimulating Medicines Preparations of Steel, Exercise & Good Nourishing Diet; Sometimes we have recourse to Warm Bathing to relax the vessels so that they may more readily yield to the force of the blood.

### Obstructed Menses

Women are sometimes obstructed in their Menses after they had flown for some time regularly, which distresses them very much.

Women are more delicate when the Menses flow, than at any other time, & Accidents are more ready to happen to women under the Menses & have worse effects than at any other time & also accidents more readily happen & have worse effects when under the Lochia than at any other time. Women are commonly a little uneasy a little time before they flow but as soon as the blood comes from the Vagina they are immediately easy; Some persons are always very bad at that time & I know a woman who every time she menstruates is very bad & is obliged to keep her Bed for 2 1/2 hours; Those Women who menstruate with great pain, are relieved by Opium only & if you give them Laudanum for



for the 2 or 3 first days, you will take away the  
 pain <sup>they will</sup> menstruate as copiously, <sup>as usual</sup>. I mention  
 this last because the French Physicians would  
 not give Scudarium in this case because they  
 thought that it was an Astringent & would  
 prevent the flowing, but so far from this that  
 it often encreases it; likewise in such cases the  
 warm Bath is very beneficial, to put them into  
 it two or three days before they should appear  
 or in the time of their flowing.

The Menses are obstructed from a variety of  
 Causes as women at the time of the flowing  
 are more Delicate than at any other time little  
 thing will stop them. The Causes

1 They may be obstructed by Improper Diet

2 From exposure to Cold

3 From Passions of the Mind.

4 From a fulness of the vessels of the Uterus

5 From a resistance of the vessels

6 From the Romentum of the Blood lessened

7 From a Cachectic disposition or obstruction  
 of some of the other viscera.

The Cure varies according to the Cause & I  
 shall consider each of these Causes as to their Cure  
 1 Improper Diet. Women when the Menses  
 are flowing are sometimes hurt by fish & even  
 sometimes

sometimes Milk & Cream as they put a stop  
to them & they know this very well so that at  
this time they abstain from them & some are  
so much afraid of them that they will not take  
milk to their Tea which I imagine can do  
no harm - It is necessary that you should  
know this that you may not order any of  
those things when the menses are flowing  
which would make the women have a bad  
opinion of your Judgement. Thus when a  
Woman is a fever & using Milk & water  
for her common Drink, if her Menses flow  
at this time you must prohibit the Milk & water;  
Such a Diet as Fish, Milk & Cream stops the  
flowing of the Menses which produces violent  
fits of sickness, Colic pains, vomiting and  
purging; you must endeavour to remove the  
present Complaints & altho the menses do not  
come on immediately, yet have patience &  
they will probably come on in the next period.

2 Cold. The Robust Women are much ex-  
posed to Cold by their daily Employments  
as working in Cold weather &c. & the Delicate  
women in being out in a Cold moist Air so  
that Cold is often a Cause of obstructed Menses  
when

when a Woman has obstructed menses from this Cause it may be removed by the woman using immediately the warm Bath or if that cannot be conveniently done to use what is next to it vizt the Pediluvium & then immediately go to Bed & take a Bolus of Theriac w<sup>th</sup> some Sal Sornu herri & drink plentifully of White wine whey after it.

3 Passions of the Mends. These have very Different Effects. sometimes they Abstract the Menses, at other times brings them sooner on than what they usually do - other times causes vomitings & Spitting of Blood & not seldom an Immoderate flux of the Menses. When the Menses are stopp'd by this Cause nothing will do so much to recover them as Sassafras & Must.

4 Fullness of the vessels. It sometimes happens that the vessels of the womb become Distended so as to lose the power of contraction & thereby cannot expell it from the Uterus. as we sometimes see to be the case with the Bladder, in the times of Delivery the Bladder may be distended a long time as they cannot pass their Urine & when this is the case the bladder will



will remain Dilated for two or three days. -  
 so this happens with regard to the Uterus that  
 by the fullness of the vessels they lose their  
 power of Contractions; & the only remedy is  
 Bleeding & no matter whether from the Arm  
 or Ankle, she should likewise be kept on a  
 spare Diet & use gently purgatives & Exercise  
 to too great a resistance in the vessels. It is  
 not easy to ascertain this, but commonly  
 those people who have fair Complexions &  
 fair hair have Lax fibres & those called  
 Brownettes or have Black complexions &  
 black hair have Rigid fibres & it is these last  
 who are subject to obstructed menses from  
 this Cause. The only Remedy here is Warm  
 bathing, the water should be in a Degree of  
 heat not greater than Animal heat, for if it  
 is greater it fatigues them & they cannot re-  
 main long in it & when they go to bed it caus-  
 es violent fits of sweating which will do harm  
 but when the heat is about that of Animal bo-  
 dies, they can remain in it about an hour  
 & when they go to bed it produces a gentle  
 sweat which will do service.

6 The momentum of the Blood too small.

It is by the pulse that we judge of this being the cause but sometimes we cannot judge by this because it will sometimes be full & strong in the forenoon & weak & small in the afternoon, but in general this is the cause of obstructed Menses in those people who have Relaxed Habit. The Cure is by putting them on a Dry nourishing Diet giving a Glass of wine after every meal. Warm Steel waters & other preparations of it & Exercise; Saffron has been given for this purpose, indeed it is a very good Emmenagogue if given in a proper quantity, but what effect can a Tea spoonfull or two of the Tincture have which contains only about two or three grains of the substance, & this is a common practice; I often gave it to the quantity of ℥v in substance, & then I see good effect from it. Aromatics may be used here with advantage all the drastic purgatives as they encrease the momentum of the blood have been used; but we must not give very strong drastic purgatives as they sometimes stop it instead of promoting it, but all those of the gentler kind may be used as the Elix. Proprietary & Pil. Rufi. There is another remedy proper in this case, viz. Electricity, this has sometimes done service but you may try it on a Dozen of persons before you do service to one; but after all other remedies

Remedies have failed this may be tried. The Cold Bath is likewise used, I have already said that the Warm Bath is usefull & there would appear here to be a contradiction; but they are both proper but in different Cases. The Cold Bath does service here by propelling the blood from the Extreme vessels on the surface to the Internal vessels & thereby the Uterus must get an additional quantity as well as all the Internal parts & thereby may procure the Menses. That there is a greater quantity of blood in the Internal vessels after Cold Bathing is every evident for I dare say we have all experienced headaches after the Cold Bath w<sup>ch</sup> is owing to the pressure of the water upon the surface of our Vessels propells the blood from the extreme vessels there to the Internal parts & the brain getting its additional share produces the Headach & Upon the same principles the Compressing the Iliac Artery has been used. by not permitting such a great quantity of blood to go to the Lower Extremities & determining it to the Uterus; but this is only for recent Obstructions & it requires a man of Skill to do it & few Women will permit any man to do this in recent Cases as they would rather try other remedies & then afterwards this will be.



be of no Use & I think when it is necessary to  
Determine blood to the Uterus it will be bet-  
ter done by Cold Bath than Compressing the  
Uterine Artery —

7 General Cachexy or obstruction in some of  
the viscera. as in the Lungs, Liver &c. When  
it depends on this, it will be impossible to bring  
on the Menses unless you remove the former  
Obstruction; Physicians imagine that when  
this Disease is joined to some others that these  
depend upon it & if you give remedies to remove  
the Obstruction of the Menses you may soonest  
effect a cure for they think that if you remove  
the Menses you will cure the other Diseases.  
Indeed sometimes this may be the Case, but  
when Obstruction in some of the Viscera is  
the Cause to apply remedies to remove the  
Obstruction of the Menses would do no ser-  
vice but we must apply remedies to re-  
move the Obstructions of the viscera that  
is affected which when accomplished the  
Menses will flow of course.

I have now given the several Causes of  
Obstructed Menses & given the several Cures  
I go now to speak of another Irregularity  
in the Menses viz

## An Immoderate flux of the Menses,

What I mean by an Immoderate flux of the Menses, is either too great a quantity of blood evacuated at each period, or when the Menses return more frequently than they should do. Altho two or three ounces of blood should flow at each period more than common I do not call this Immoderate & altho they should return in moderate quantities every three weeks I do not call this immoderate likewise, as there are not great differences, but what I mean by Immoderate is when it exceeds those bounds.

Causes. An Immoderate flux of the Menses is produced by any thing that increases the momentum of the blood as Violent Exercise, Stimulating Medicines, Passions of the Mind, too great a fullness of the vessels, Polypus & Scirrhus & cancerous Tumors. This Disease is very subject to those Women whose menses are about to leave them.

Prognosis. This depends on the greatness of the Evacuation & the progress you have advanced towards a cure, but in general it is favourable for ulcers in cases of cancer & those Women whose Menses were about to leave them.

I never saw one Dye of it, the reason is altho' great quantities of blood is evacuated yet it is done gradually & when this is the case people very seldom die: Dr Haller says that if there is any hemorrhage where the flow of the blood is gradual altho' it continues a long time yet there is no danger as the body will make supplies for what is evacuated & he gives instances of Persons losing great quantities of blood in this way.

Cure. Bleeding. You'll find Physicians much divided about its use here. Some have recommended it & others not; the reason of this is that altho' the flow is immoderate yet it very often stops of itself suddenly, so that when the person was bled & it to stop some time after, its stoppage was ascribed to it, & those persons who discommend bleeding by giving some remedies & it stopping which it would have done if nothing had been given. They have ascribed the stoppage to their remedies & therefore say that bleeding was hurtful. Indeed one would think that the blood flowing by two orifices instead of one would weaken & exhaust the patient but if the Woman is strong & Robust, bleeding will not do any harm. — Coto



Gold substances have been applied to the Back & parts of Generation; this may have good effects in the Summer & when it has been brought on by the person being over heated by violent exercise, it will have the same effect as applying Gold substances to the nose & neck in an hemorrhage of the Nose. Ligatures & Cupping Glasses were applied by the Ancients; Ligatures are of little service for altho they be made on the Extremities & keep all the blood which they could contain yet if all the rest of the blood of the body was to run off, the patient would die as the Extremities can contain only a small quantity & besides if they are made too tight they will do harm by compressing the Arteries as well as the veins; but they say that by the Irritation which the Ligatures make a Derivation is caused to the Extremities, but cannot this Derivation be better done by Blisters & I have seen very good effects from them, & especially in three cases. a Lady had a violent vomiting of blood which was stopped by applying a Blister; another had a hemorrhage from the Nose which was stopped by the same; but more especially there was a woman in the lying in ward sometime ago who had an immoderate flux of the Lochia & every remedy was tried

tried by the Physicians there without success  
 when I saw her I ordered a Polister which had  
 the desired effect; so Polisters may be used with  
 success. Another Remedy recommended by  
 Hoffman & others is warm Bathing. One at  
 first would imagine that Warm Bathing would  
 encrease the hemorrhage, but they say that  
 by putting the Body in warm water the ves-  
 sels of the Extremities & those on the surface of  
 the Body are relaxed & thereby a Derivation  
 was made to them & they were induced to think  
 so because when the feet were put among  
 warm water the veins there were observed  
 to become Turgid & thereby thought that it  
 caused a Determination of blood to that part;  
 but when heat is applied to the Body it rari-  
 fies the blood & makes it take up a greater  
 space & thereby will encrease the Hemor-  
 rhage; but they may say that altho this is  
 the Case by Pediluvium this rarification is  
 only communicated to the Legs, but the pro-  
 pensity of heat to bring all bodies to an  
 Equilibrium contradicts this, besides our  
 blood goes round in a Circle & what is ra-  
 rified in the feet in a little is carried to the  
 other parts of the Body in a rarified state, in  
 proof

proof of this if pedeluvium is continued a little time you'll observe the vessels of the Temples considerably swelled - Some impute the swelling of the vessels by warm bathing to a quantity of the water being absorbed & increasing the quantity of the fluids, but this is not the case for if you put a person in a Dry heat instead of a wet heat the same ramification will take place. Therefore it would appear that warm bathing will do harm in uterine hemorrhages & likewise it will do harm in every case where the increased momentum of the blood does hurt, but is of service where we want to increase the momentum. These Physicians who recommended the Warm Bathing in this case were misled by thinking that it relaxed the vessels & caused a determination to them; & as Pedeluvium cures some kinds of headaches they thought that it was by Detraction, which was not the case but by increasing the momentum & bulk of the blood. In order to treat more particularly of the Cure I shall go over the several causes.

1 Violent Exercise. When owing to this cause will be cured by Rest in Bed.



- 2 Violent Passions of the Mind. In this case the only cure is Opium.
- 3 Violent Stimulating Medicines. Opium is likewise the best remedy for this.
- 4 Women being too plethoric, & in the summer season, may be cured by cooling medicines & Rest in bed.
- 5 Polypus. Regards must be had to the Spincer. This admits of no Cure.
- 7 When the Menses are about to leave the Woman this Disease often happens; the Menses do not leave women suddenly, when they are about to leave them they will be obstructed for two or three periods & then flow & after this they will be obstructed again & then flow & some women will be so this way for 9, 10 months or a year before they leave them altogether & at this time many Women think themselves with Child by them being obstructed & flowing again & at this time they have sicknesses as in Pregnancy\*. When there are Immoderate fluxes at this time Opium is the only remedy, it quiets the patient eases the pain makes the circulation more moderate & allows the blood to clott in the Extremities of the vessels & takes off Irritation & thereby is the best remedy for this purpose. —
- \* that this may be found out by the age of the Patient & irregularity of the Menses. —

A great variety of Astringents have been recommended by Authors but I imagine few possess the Virtues given them, & the only way to try if they possess these virtues is to use them in hemorrhages of the Nose, but I do mean that they should be applied externally as they cannot be used in that way in Ulcerine hemorrhages I make no doubt that by the application of Medicines to the bleeding vessels the hemorrhage will be stopped such as Eschorotics but then they act on other principles than Astringents; but if the Medicines are taken internally I will venture to say that they will not cure it, for besides <sup>the difficulty</sup> of strengthening a topical part by Internal remedies, the remedies lose most of their effects if not the whole by the changes produced on them in the Stomach & the mixture of other fluids with them; & as this will be the case with hemorrhages of the nose it will also be the same with Ulcerine hemorrhages the Mark was one of these remedies & has been used as an Astringent in this case; you'll find many powders recommended by Authors as the Pulv. Styptic. I have tried it & I cannot say with advantage; it is composed of Alum. Terra Japonica & sanguis Draconis; thus way  
 then

these Medicines have acquired these virtues is that of the Person's using them when they stop which they often do of themselves the medicine receives the praise. I had an Instance of this a woman who had this Disease sent for me, by mistake I went into the house below & I saw the blood running thro' the floor the Discharge being so great, when I saw her I found her pulse weak & feeble & very bad, I ordered her the Puls. Styptic in a Dose of Leucodanum when I called next morning she was greatly better & the flux had left her; I was ascribing this change to her to the Medicine but I was told that she had not taken it. I shall consider the Ingredients of the Puls. Styptic as it is so much recommended in this Case. Alum is an astringent medicine it draws the mouth together, but how strongly it operates on the mouth, it will be greatly changed before it reaches the Attends by the mixture of other fluids & will have probably no effect at all; if you give a tolerable good dose it will produce Nausea & Vomiting - The Terra Japonica & Sanguis Draconis you cannot give such a dose of them as to act as an astringent as the Stomach will not receive so much of them as to produce that



that effect. Therefore the only remedy is Opium as it composes the circulation & thereby clots are formed in the mouths of the vessels which will stop it. Dr Duck recommends Nitre & Elixir of Nitriol for this Disease indeed if it is brought on by violent Exercise or being too much heated these cooling Medicines may answer very well, but the chief one to be depended on is Opium. If the Flux is greatly abated a Strengthening Diet & Mild Astringents may be used with propriety.

I shall now go to another Disease which Abimpregnated Women are liable to meet

### Fluor Albus or Whites

This is a Disease peculiar to Women but not confined to the same periods with the Menses for Children may have it & people whose menses have left them; There was a Child in the Infirmary who had a running from the Vagina & as she had slept with some people who had the Gonorrhoea it was very naturally supposed to be it but after having given two or three doses of Physic it went off but then her Eyes were immediately swelled very considerably & there was a running of Mucus from the Eye lids, so this shows that Children

Children may have this Disease: but it is much more common for this Disease to come on when the Menses are about to appear or after they have come on or after they have left them.

This Disease is sometimes very mild so that the Discharge is small & no Inconvenience arises from it nor Injury to the Health.

Sometimes again the Discharge is so very great so that if they are obliged to cross the Room they must have cloths to absorb the matter as it is discharged or it will drop on the floor, & when it is in great quantity there happens Excoriations of the parts & a bad Urine by it, & the health of the person is very much impaired. Dr Astruc has made

Different Species of this Disease according to the difference of the Consistence of the Matter but the Consistence of it depends on whether it has immediately come from the Uterus or been accumulated in the Vagina for some time, if it comes immediately from the Uterus, the matter is thin but if it had been for some time in the Vagina it will be thick by the thinner parts being absorbed. Therefore this does not show different Species of the Disease.

As -

As to the Seat of this Disease - Some have thought that the matter comes from some Glands in the Uterus; others that that it comes from the same vessels which pour forth the Menstrual Blood; & I think that this last is the justest opinion; for we often find that the flux Albus serves in place of the Menstrual flux; & Women sometimes who are in good health, have a little of the Whites after the Menses have done flowing; the seat of this disease is sometimes likewise in the Vagina & the matter comes from the same vessels which pour forth blood sometimes, which is in place of the menses. This is a Disease that often baffles the prescriptions of the Ablest Physicians; as we have not acc<sup>pt</sup> often to know the Cause. — As the Gonorrhoea has a great resemblance to this Disease, it is of consequence to distinguish them. We must enquire particularly into her Character, & if it is the Gonorrhoea by remaining some weeks there will be Ulcers, chancre, swelling in the Groins &c. & in a flux Albus altho the Discharge be great, the matter will be ropy but if the discharge is great in a Gonorrhoea the matter is thin; altho there is some Ardor Urinae in a flux Albus yet it never comes on till it has



has continued some Months & the Discharge  
very great, but in a Gonorrhoea the Ardor Urinæ  
is among the first Symptoms; so by these circum-  
stances you may distinguish between them in  
Causes. 1<sup>st</sup> The Fluor Albus is often owing to  
Ulcerations of the Uterus.

2<sup>d</sup> It is sometimes owing to a Relaxation of the  
Vessels of Uterus and Vagina.

3<sup>d</sup> Stripes received in Child bed & with same with

4<sup>th</sup> Those Women who are subject to immoderate  
fluxes of the Menses are subject also to this.

5<sup>th</sup> Sometimes it is Universal by the whole habit  
being affected, as a Scorbutic Disposition by  
having fully immoderate Cold air & using no Ex-  
ercise. Now the Cure is more difficult or easy  
according to which of these is the Cause.

The Symptoms are much the same with an  
Immoderate flux of the Menses, for in both  
there are pains in the back, loss of Appetite,  
color more pale & thick Sediment on the Urine.  
This Disease was always looked upon as a Cause  
of Sterility & Hippocrates says if a woman labours  
under a Fluor Albus, they will never conceive  
but this is false for we have many Instances  
of Women labouring under the Fluor Albus  
being delivered of very fine Children.

Prognosis

Prognosis. It is never attended with Danger but it is very Difficult of Cure.

Cure. And here I shall go over the several Causes

1. An Ulceration in the Uterus this is very difficult of Cure. Injections have been recommended to be thrown up to Cleanse them, but then you cannot throw them into the Uterus if the Ulcerations were in the Vagina they may be of service. We may try to cleanse & heal the Ulcers by the Cicuta & Mercury which may sometimes effect a Cure.

2. A Relaxation of the vessels of the Uterus & Vagina & in this case they will answer the Menstrual Flux, you cure this in the same way with the Chlorosis, by Strengthening. If it is a Gonorrhoea you cure it in the common way, with Mercury &c.

3 & 4. If stripes received in Child bed or owing to Immoderate Fluxes of the Menstrues, Authors have recommended it to be cured by Astringent Fomentations, Injections & Pepparies. Fomentations. It is not an easy matter to throw up any fomentation so as to reach the Uterus as <sup>its</sup> mouth is always shut so as not to receive it & the most that <sup>can</sup> be admitted is the vapor which will act as pure warm water as.

as nothing in these fomentations will be converted into vapor but the pure water, which thereby do harm as it will relax the vessels.

Injectiōns these are made of Tincture of Myrror, Rados Balsam, Alimon & Lini-water or any As. -stringent you please, when the affection is in the Vagina they may be of great service, but when in the Uterus they can be of no use as they cannot be made to reach it; a very good astringent Injection is made of Tinct. Cupri Tinct. Myrror. & a little brandy.

5 When the whole System is affected, as a scorbutic habit by living fully moist Cold Air. The fluxus Albus here altho bad yet it removes other Diseases; & if we give remedies to stop it without correcting the Habit will do harm by bringing on worse Diseases, you must therefore remove the Cause or correct the Habit; this is done by Evacuatiōns of all kinds as Emetics, Purgatives, & Opening the pores of the skin by Warm bathing &c. & Low Diet - when her habit is sufficiently corrected & the bad humors sufficiently drained from the Body then they require a Course of Medicines quite the reverse of the former, viz a good nourishing Diet



Diet, Riding on horse back & in Carriages, Change of Air, Cold bathing with Steel &c. The Steam of several Gums have been used but they can do no service unless the affection is in the Vagina. When the Whites are greatly drained up the Cure is much the same with an Immoderate flux of the Menses only with this Difference that Opium is the principal remedy in the immoderate flux of the menses whereas it has not great effect in the Fluor Albus & Astringents have not great effects in the immoderate flux of the Menses whereas they are the principal remedies in the Fluor Albus.

I go now to mention

### The Symptoms of Pregnancy

You'll find these different in different Women. but there is always in the beginning an Obstruction of the Menses, sick fits, throwing up & especially in the morning; these attend attend an obstructed menses but are never so violent as when from pregnancy, sensible of an increased bulk between the third & fourth Month, & between the fourth & fifth month being sensible of the Motion of the Child & now the throwing up ceasing & as they advance the Motion of the

the Child being more evident & the Vults increasing there may likewise be some marks collected from the Breasts, after they are some time pregnant they become fuller & more fleshy & the Areolæ become of a dark brown Color. When you meet with a Woman who has all these Symptoms you may be certain that she is with Child; but there are many who have not all these symptoms so sometimes their Menses are not obstructed for 2 or 3 periods & are irregular as before & some never enjoy better health than when with Child; but the only sure Symptom of a woman's pregnancy is the Obstruction of the Menses, altho' a woman have 2 or 3 periods regular at the beginning & obstructed afterwards & the other symptoms concurring I would declare she was with Child & it never happens that the menses flow regularly thro' the whole time of a woman's pregnancy & if it flows more than 2 periods they are always small in quantity & never flow after the 3 or 4 months so that if a Woman have all the Symptoms mentioned above except the Obstructed Menses which continue to flow regularly & in its usual quantity I would conclude that that Woman is not with Child, I have been  
consulted

in several such cases as this & always positively concluded that they were not with Child & I have never yet been Deceived; When a Woman has all the Symptoms except an Obstructed Menstrues, when you let them know your Opinion, they will hardly believe you to tell you that they know Women in the same Condition in Pregnancy, indeed sometimes during Pregnancy they have hemorrhages from different parts of the Body as Piles, but then they have always their Menses obstructed. In judging whether or not a woman is pregnant you must put a stress upon the regularity of the Menses & if in proper quantity & likewise you may judge by the Bulk, if the Woman says she is four or five months gone & has only the bulk of one that has gone 2 or 3 months then we are sure she is not with Child. Another way of knowing is by the Touch, if the Uterus feels light as in the unimpregnated Uterus & if the Bulk is not so great as it should be & the Menses flowing regularly then we are sure she is not with Child. It is commonly Women with their first Child that we have to examine as those who have



have had Children know better by being experienced  
 but sometimes they may be mistaken. I know a  
 Woman who having had 4 Children & was at Child  
 of the fifth, she aborted at the 3 month, but after the  
 Evacuations had dried up she still encreased in  
 Bulk as if she had had another Child which possi-  
 bly might have been the case as I have seen several  
 Instances of this & particularly a Lady who mis-  
 carried of Twins yet kept a third Child; but this  
 woman at the usual period of the Menses they  
 appeared altho they were before obstructed, but  
 the Bulk still encreased & between the 4 & 5 month  
 she felt a motion as if of a Child, but then it was  
 different from the motions she had felt by her  
 former Children instead of being sharp & quick  
 it was dull & obtuse, but her Menses continued  
 to flow & the bulk encreased till the 9 month when  
 she was seized with a violent flooding without  
 Labour pains when I saw <sup>her</sup> I examined the state  
 of the Uterus I found it a little Dilated & I found  
 something presenting like the Wallocks of a Child  
 but then it had not exactly its shape nor weight  
 & bulk & I could perceive that it was some  
 fleshy substance & the flooding still continu-  
 ing violent which occasioned frequent faint-  
 ings, violent vomiting the pulse languid weak

weak & frequent. I then introduced my hand  
 & pulled away the fleshy substance & the flood-  
 ing immediately stopped, but she was so much  
 reduced that we were obliged to wet her mouth  
 with a feather dipped among Claret. & so she  
 recovered. I had lately another Instance  
 of a Lady who when in the seventh month the  
 waters broke but no Child came away, which  
 dried soon up & at her next usual period her  
 menses appeared, but still her bulk continued  
 as she staid in the Country she came to Town  
 to be delivered, she consulted me, when I ex-  
 amined her, the Uterus had a great bulk &  
 weight, but was only about the bulk of an  
 Uterus three or four months Impregnated &  
 she reckoned herself to be about eight months  
 gone with Child; her menses were regular  
 & in due quantity & there was no pain after  
 their flowing as happens when they flow  
 when the woman is impregnated for <sup>two</sup> or  
 three first months: I persuaded her that she  
 was not with Child, & advised her to go to her  
 Country & as she is in good health & the Men-  
 ses regular every month is no great Incon-  
 venience. I heard from her lately & she enjoys  
 perfect good health.

## The Diseases of Pregnant Women

There are three periods of a Woman's pregnancy each of which have peculiar Diseases & each period consists of three months.

In the first period or first three months, Women are subject to violent vomitings, head aches faint-  
ish fits &c.

In the second period a continuation of the sickness & throwing up, suppression of Urine, Ear aches &c.

In the third period Legs & thighs swelled, pain in the Abdomen Palsy, vomiting, convulsions &c.

This is owing to the suppression of the Menstrues & a new stimulus given the system by the Uterus being Impregnated

2 Owing to the pressure of the Uterus upon the Bladder or Rectum

3 Owing to the pressure of the Uterus in general upon the great Veins, great Arteries, upon the large Nerves. great space the Uterus occupies &c.

In general these Diseases are cured by loosening the Uterus, keeping the body open & lessening the pressure of the Uterus upon the neighbouring parts, but I shall speak of each of these in particular.

The



The Throwing up. This begins immediately after they have conceived & continues often till the 5 or 6 months. You'll find a great variety in the severity of this Symptom, some Women never enjoy better health than when pregnant, others again from their conceiving to their Delivery are not able to raise their heads from the pillow, When this Symptom is mild they never ask any remedy, & it is only when it is violent that we see them under this Symptom; this vomiting differs from all other kinds, for in the time that they are throwing up they have no sickness but in perfect good health. When this is violent the Placenta should be opened & they are always much the better of being bled, some have objected to this as it may procure an abortion; but there is no danger of this when bled in the beginning or ending of pregnancy & is more safe than in the middle, but care should be taken that you do not take away so much as in such a manner as to make them faint which will favour Abortion & in every pregnant woman it is the best way to bleed her in an horroizontal posture  
and

and small quantities at a time which will prevent the fainting, thus if I am designed to take away  $\text{Z}^{\text{VIII}}$  of blood, I will take away  $\text{Z}^{\text{II}}$  & then stop a little & take other  $\text{Z}^{\text{II}}$  & so on till I have taken the  $\text{Z}^{\text{VIII}}$ . The vomiting is often attended with Acidities of the Primæ viæ. the only remedy for this is Magnesia alba, brats Eyes or any of the Testacea, but the Magnesia is the best as Women are generally costive & this will open them in the belly. In some Cases Bleeding & a spare Diet will cure the vomiting, but this sometimes fails & if it still continues the only remedy is Laudanum; but it will be better to give Opium in a solid form, for if they throw up <sup>after</sup> the Laudanum you do not know how much of it she has thrown up & thereby cannot repeat the Dose, but when given in a Pill, you can easily know if it is thrown up by examining & if thrown up you can repeat the dose & besides when in a solid form it is less apt to be thrown up, for a number of women in this state commonly throw up all liquids, but retain Solids in their Stomachs.

Violent Toothachs & Headachs. These are symptoms of Plethora & cured by bleeding  
suppression

Suppression of Urine: About the fourth or fifth Month the Uterus is so large as to fill exactly the Cavity of the Pelvis & thereby pressing on the Bladder produces this Symptom. & it is most frequent at this time than afterwards, for at this time the Uterus fills exactly the cavity of the Pelvis & presses greatly upon these parts which are contained into the Pelvis, whereas afterwards the Uterus rises above the Os Pubis & the pressure is not so great on the containing parts of the Pelvis. There is no Inconvenience in this Symptom if care is taken that the Woman be relieved now & then when needfull; but if it is neglected or the woman does not choose to tell it, by the Bladder being very full, it will take up a considerable room in the Pelvis & the Uterus will press the more upon its neck & hinder a catheter to be introduced into the Bladder & in this way there are instances of several dying of it by neglecting it. When there is a Suppression of Urine the best method is to take away the water by the Catheter when required. it may happen sometimes that the Bladder may be inflamed by being long distended, you'll know this by the Symptoms of very violent pain in the region of the Bladder, pulse hard & full, Urine high colored, when these



These symptoms remain after drawing of the Water, then we may be sure that it is Inflamed & which is cured by Bleeding, Emollient fomentations to the part & cooling Purgatives. Sometimes the Uterus changes its posture by falling down filling up the space between the Os Sacrum & Symphysis of the Os Pubis & thereby compressing the Urethra so that a Catheter cannot be introduced & the Uterus cannot be pushed up to its natural situation. I never saw an instance of this but Moriceau mentions one. he could push up the Uterus & could not introduce the Catheter into the Urethra on account of the Uterus compressing it. The woman died by the bursting of her bladder.

Costiveness which is owing to the pressure of the Uterus upon the Rectum; those Women who throw up are generally likewise Costive as not much of their food goes into the Intestines & Women when with Child never use so much Exercise as when unpregnated by, which their Appetite is not so great & the Action of the Intestines impaired, so that this Symptom is very common to Pregnant Women. It is cured by some laxative Medicines that are easily taken. The Magnesia Alba is a very

very good Medicine for this purpose to be taken in the morning & it will operate much better a Solution of Gremor Tartari is taken the night before; another remedy is sulphur which opens the Belly gently but the only Inconvenience of this is that it sometimes generates a quantity of Wind which by distending the Belly distresses very much. A remedy which has been much recommended for this purpose is Seritine Electuary, but this is too mild & must on that account be taken in large quantities & on which account they will soon loath it, but by adding some Pulv. Grem. Tart. or Pulv. Opae a small quantity will be sufficient & thereby will answer very well.

Physicians never use Aloetic Medicines for this purpose as they act with too great violence but if these are given in a small quantity they will operate with the greatest ease & many Women use them in this Condition without any bad consequence but rather with great advantage & it is common in this case for them to take an Andersons Pill which is an Aloetic Medicine, they are made by boiling several Herbs & adding some Aloes to the decoction & boiling it again to a proper Consistence

consistenced for forming pills, & I have seen the half or one of these pills do as well as could be Desired. Injections may answer very well but this is very inconvenient to be done every night for perhaps seven or eight months; they may be used when the woman has been two or three Days Costive before she complains in order to give her immediate relief & then give her afterwards some Medicine by the mouth which will keep her open in the Belly. They should likewise be kept on a vegetable Diet & may use the light Fruits & what with the Diet & what with Medicines, their Wellnes may be kept open.

Piles Women are more liable to this Disease when pregnant than at any other time, they are distinguished into External & Internal or when about the verge of the Anus or within the Rectum & likewise into the Closed & Open or where the veins are only greatly Distended or when they are ruptured. This Disease is owing to the pressure of the Uterus upon the Ilac vein & thereby hindering the return of the venous blood & causing an Accumulation of blood in the Hemorrhoidal veins. This Disease like the <sup>Hydropicus</sup> Chlorosis will often baffle the



the prescriptions of the most expert Physicians. This is owing to different Causes & the Cure must vary accordingly: In some people the vessels are much relaxed so that the Piles will be brought on by standing long on the Erect posture; sitting on the wet Grass, Riding on horse back & walking any Distance. The best way to Cure them from this Cause is to rest them & by the Cicatrization the parts will be strengthened & will not be so apt to Return: likewise Astringent applications are of service here as Spirits Tinct. Myrrh & Madecassam &c.

Another Cause is when the person is plethoric & a Determination of blood to these parts & this requires a quite different Treatment as Astringents would be hurtfull here; it is Cured by Blooding & Emollient applications to the parts.

Another Cause is from Ulcerations of the parts the Cure here is to use Applications gently drying. What has made many Physicians fail so often in the Cure of this Disease is that they do not enquire into the Cause & the women by having a better opportunity of knowing the Cause have often Cured this Disease themselves after the Physician has failed in

In this Disease the Belly should be always kept open, for when <sup>the</sup> Sphincter ~~is~~ is contracted which prevents the return of the venous blood in those who have lax vessels; in Children the vessels are as lax or more so than in this case; but the Sphincter is not so much contracted as to compress the veins & indeed their Sphincter is scarcely contracted at all & therefore they should keep an open belly & lye in an Horizontal posture. — This Disease is never Dangerous but sometimes tedious of Cure

Swelling of the Limbs and Thighs: This is owing to the pressure of the Uterus on the Iliac vein. This is cured by taking off the pressure of the Uterus from the Iliac vein which is done by confining the patient to bed, that this has the effect you may often observe that altho the Legs are much swelled at night yet in the morning they are quite fallen so this shows the propriety of the Horizontal posture. — The parts of Generation sometimes likewise become so much swelled as makes it necessary to use puncturing to let out the water; but I never saw a case where this was necessary. In the swellings of the Legs, Thighs &c. if they are plethoric you may take away some blood <sup>but</sup> by the stimulus which the faces give

but this will often not cure these swellings  
but we must have patience till after Delivery  
& then they go off.

Cramps pains in the Abdomen. This is  
owing to the Bulk of the Uterus distending the  
Containing parts of the Abdomen a great length  
therefore they must avoid every thing that en-  
creases the Bulk, & on that account should  
take little food at a time & repeat it the oftener  
& should avoid every thing that is flatulent &  
should keep their Belly open; likewise they  
may relax the Containing parts by rubbing  
upon them Emollient Substances as Ol. Olear.  
Lee. Bleeding may likewise be of use as it will  
take off the Tension from the Containing parts.

Cramps in the Limbs. This never happens  
more early than the fourth or fifth month at  
which time the Uterus fills exactly the Cavity  
of the Pelvis & may press upon the large nerves  
& this happens to them mostly when in Bed &  
when they are seized with them they cool them-  
selves suddenly which cures them. Women in  
the time of Delivery are sometimes seized with  
them by the Child pressing upon the large Ner-  
ves, & I have seen them that they could not lie  
in one posture half a minute by their violence  
but they go off as soon as Delivered.      Convulsions



Convulsions. owing to the pressure of the  
 Utterus on the large blood vessels & Nerves &  
 is thereby occasioned in Mobile Systems &  
 they are more frequent to women with Child  
 than at any other time because the Irritability  
 is more remarkable at this time than afterwards  
 Convulsions are more or less dangerous accor-  
 ding as they have had them before or been accus-  
 tomed to them. for if they have been accustomed  
 to them before they are not Dangerous; they  
 are more Dangerous according as they return  
 frequent or not; when they return often they  
 commonly die; they are more or less danger-  
 ous according as they are in consequence of  
 the Labour or not; if in consequence of the  
 Labour they recover after Delivery; they are  
 likewise more or less dangerous according as  
 they recover their Senses soon after the fit or  
 remain long in a state of Insensibility; -  
 however there are a few exceptions to this ge-  
 neral Rule of which I shall give an Instance  
 A Lady about the 7<sup>th</sup> month gone with Child  
 about ten in the Evening had a headach &  
 could not see, which portended some greater  
 mischief & about one in the morning she was  
 seized with a Convulsion fit & when she  
 came

came out of it she remained all that day & night till next day insensible, but then came to her Senses & recovered soon & went to her full time. So this is one Exception. But it always happens that if they come on frequently in consequence of the Labour that they are always fatal. Our only chance is to empty the vessels well by bleeding frequently & applying Cupping Glasses; in the state of pregnancy we cannot use some Remedies which are found usefull in the Unimpregnated state thus it would be wrong to give Emetics, because by their action the Uterus would press against the Ilac Arteries & cause thereby a Determination of blood to the head & may rupture some vessel. When Convulsions seize a woman who has come to her full time we must frequently examine the state of the Uterus & when the mouth opens to deliver her, & if they are very violent we must force the Delivery.

Palsies, I have nothing to say of them from the common method, only we cannot use many of the Remedies used commonly in this condition

condition, but are seldom cured untill they are Delivered & is often done spontaneously & if it should remain after Delivery we must have recourse to the common Remedies.

Vomiting, this happens from another Cause than the Vomiting at the beginning of pregnancy this is owing to the Uterus becoming very bulky & pressing upon the Stomach. at this time likewise there is violent Cough owing to the same Cause. The Cure for these is to empty the vessels by Blooding, keeping the Belly open & avoiding every thing that increases the Bulk, if the Cough happens from Cold it is cured by Bleeding &c. I have nothing more to observe

In the time of Pregnancy to use Abstinence avoid violent Exercise, use a vegetable Diet, keep the Belly open & avoid every thing that is Disagreeable as Disagreeable sights &c. There is another Disease which is subject to Pregnant Women & is more frequent & Dangerous than any I have mentioned that is

Flooding when with Child. This attacks Women at any time of their pregnancy but



but it most frequently happens before the fourth month; Women I have said are sometimes liable to have their Menses for the first two or three months, so it will be necessary to distinguish between the Menses & a Flooding; if the Menses they come at regular periods, without any evident Cause & continue a certain time & then go off; the flooding has no regular period has some evident Cause as violent Exercise & no certain Duration. Women are more subject to Abortion than other Animals, on account of the posture (viz<sup>t</sup> the Erect) which they are in & the pressure of the Child upon the mouth of the Uterus. It is surprising how soon some women will miscarry & how much fatigue others will undergo & will not miscarry; there are some Women who regularly miscarry about the third or fourth month without any Evident Cause; others will not miscarry by any means Moriceau gives several Instances of this, he says there was a woman who by the house that she was in, getting on fire - jumped a window of three stories by which her Leg and arm were broke yet she came to

to her full time & was Delivered of a living Child.  
 & another Case of a woman who endeavoured to  
 make herself miscarry by jumping &c yet she  
 would not do. Flooding is occasioned by every  
 thing that increases the Circulation of the Blood  
 as Violent Exercise & therefore is unfit for  
 every Pregnant Woman likewise Violent  
 Stimulating Medicines; several Concussions  
 or any thing that produces violent straining  
 as being Costive Violent Cough or vomiting  
 Passions of the Mind. Altho Anger & Fear  
 seem to have different effects on the Body yet  
 they both produce it. In Anger there is an  
 increase of the Circulation & will thereby  
 act in the same way with Violent Exercise  
 in causing an Abortion & the Passion of  
 Terror brings on a Spasm upon the surface  
 of the Body & thereby there is a greater quan-  
 tity than usual in the Internal vessels. This  
 is shown by the Paleness of the face, Trem-  
 -bling & Rigor & we often see it produce  
 fainting fits Hemorrhages of Internal  
 vessels &c. All the violent Passions will  
 procure an Abortion, as we often see them  
 produce

produce convulsions, bleeding at the Nose, vomiting  
 of blood &c. you'll often find women who take  
 the greatest Care of themselves & avoid every cause  
 that can in the least contribute to Miscarriage,  
 yet they will Abort. I shall now give the  
Prognosis. It is attended with more or less dan-  
 ger according as they have been longer or shorter  
 time pregnant; it is never attended with danger  
 if it happens before she is five months gone with  
 Child, if you look into Van Swieten you'll observe  
 he gives five Instances of Women dying in mis-  
 carrying before the third month, but then it  
 was not by the Abortion alone for they had other  
 Diseases which was the cause of their Deaths  
 I do not doubt but the Abortion was the cause  
 of these Diseases, but you must understand  
 me that altho I said that they never die of the  
 flooding before the 5 month yet it may bring  
 on other Diseases which may prove mortal;  
 you'll often find very violent floodings at this  
 time but I never saw any mortal & all you  
 can do here is when the woman is faint to sup-  
 ply her with Cordials & no manual Operation  
 is necessary at so early a period, so you must leave



leave the work to Nature

Flooding is more dangerous according to the frequent Repetition of it; it is seldom so violent at once as to make it necessary to deliver the Woman, for if a woman has used Exercise a small flooding may come on & then it will stop, in three weeks after this it will return more violent & then stop in three weeks after this again it will return more violent than ever which may cause Abortion or the life of the Woman; But I cannot say that the flooding is never violent at first but it is not often the Case; I cannot give any Rule when to Deliver the Woman for this depends upon the Circumstances of the patient, but I shall say that for one who dies by being too soon Delivered, there are ten who die by being too late. —

It is attended with more or less danger according as it happens further from or nearer to the full time When it happens at the full time, you have more reason to expect the Labour pains & when they come on they will do very well; I was called to a Lady about four days ago who was come to the full time she had a violent flooding & had fainting fits frequently, when I came she was recovering out of one of these fits, when I was  
told

told her Case I would forbear Delivering her altho the flooding was violent untill the labour pains came on & accordingly in about an hour after I saw her she took a pain in the small of her back & belly & these labour pains gradually increased & in a few hours afterwards I delivered her & she is in a very good way. I have had many Instances of this. Floodings are more or less dangerous according as they are attended with labor pains or not; if they are attended with labour pains there is no Danger - so much for the Prognosis

Means of Preventing Floodings. Every woman that is seized with floodings do not always miscarry & if it stops it is owing to the blood coagulating in the mouths of the vessels whereby the least motion may come out & the flooding return more violent than ever. the oftener the Repetition the more Dangerous it is & the more certain of Abortion. & if it happens that the upper part of the placenta is separated from the Uterus you are sure there will be an Abortion. You'll often be consulted upon the preventing of Abortions, but this will be different according

to

to the Cause as it may be owing to different Causes. There are some Women who miscarry always at a certain time & Hippocrates says that in this case the Uterus is capable of being dilated to a certain length & when it comes this length the Uterus expells its contents; but this is not the Case for if they can put over that certain time they will go to the full time: You must always have respect to the Cause that when it is owing to a full habit of Body if you confine them for the first two months & give them a full diet there is nothing that will make them miscarry more readily, but the way to prevent Abortion in them is to allow them little Exercise, live on a spare Diet & relieve them frequently, but you should always avoid bleeding them at the time the Menses should come on as it may be apt to contribute towards flooding but always do it in the middle of the period.

Some Women who have a great deal of Menses are frequently subject to Abortion & the only way to prevent it is to use cold bathing, cold applications & use no Exercise.

Some Women have flooding with labour pains the only means to prevent Abortion is lying in



in bed & giving a Dose of Laudanum.

Some Women by the least Exercise are subject to floodings, to prevent which they must be in bed & use Laudanum.

Others have Abortions without any flooding & pain but by the waters breaking & this is the most undelicty circumstance of all as nothing can be done to prevent it, but Women do not always miscarry when the waters break for it may dry up & the woman may go to her full time, but if it does not dry up we are sure there will be a miscarriage; In some Women the Membranes break always at a certain time. I thought once that it was owing to the wrong position of the Child by a foot or hand being at the mouth of the womb & the Woman being of a lax habit so that the mouth of the womb being a little opened so that a part of the membranes waists the resistance and the pressure is increased within by the foot or hand of the Child, by that means the membranes break, but I find that this is not the case for this often happens when the head of the Child presents.

When there are any suspicions of Abortion  
bleeding

Bleeding is always used, but in those cases when the vessels are relaxed it will contribute to it. but so many women (altho of this habit) have a good opinion of bleeding here that they will be bled whether reason or not, in this case you may take away all of blood, for if she aborts & you not bleed her, she will lay the blame upon you for not bleeding her; in all cases they must be confined to perfect rest to lye in bed several Days not about the Bed with their Cloaths on but in their naked bed, because when they lye above the Bed with their Cloaths on by the taking them off at night & putting them on in the morning may fatigue them & besides they will not lye so easy. The only objection that they have to the naked bed is that it weakens them, but it will not do this unless they sweat profusely, so if you make them lye on a Mattress & keep them cool this objection will be removed. A remedy that has been much used in this Disease is Opium I seldom or never give opium unless the bleeding is violent & attended with pains & occasioned by violent Exercise &c. but if it happens without any Cause & no pain it will do no service.

Cold

Cold Applications are used but they are not necessary unless they are violent, then cloths dipped in Vinegar & water may be applied with advantage to the parts of Generation.

Another remedy is the Mark but I have shown that it is not possessed of the Astringent virtues ascribed to it in such cases as this, if the flooding is moderate it need not be used & if violent we must wait upon its effects, for they will be very slow.

Cooling Things as Cool Rooms, Cold Bathing & a Cool Diet are of great service & the Tinct. Rosar. acidulated has been used indeed it may be of great service as it is a cooler & especially when these floodings happen in the summer Season.

Astringent Wines have been used, they are of service here the best of which is Claret as it is Astringent without being heating as it does not contain much spirit. The Red Port has more of the Spirit & thereby more heating & not so proper here.

Strengthening Masters have been applied to the Back when there are pains in it, but they often produce a heat & Itchiness & disturb the patient greatly & sometimes they have the same



same effect with a blister in raising the skin. therefore when you apply a strengthening plaster you must give orders that if it should produce any uneasiness to take it off.

These are the Common Remedies used to prevent Miscarriages.

If Floodings happen before the fourth month they commonly miscarry, & this is the most common time; & here you cannot give any manual assistance; After Abortion if the Placenta adheres to the Uterus you use a pair of forceps to extract it, but do not use violence as at last it will come away of itself about the 3<sup>rd</sup> or 10<sup>th</sup> Day but most frequently about the third or fourth.

If the floodings happen about the 6, 7 or 8 month then you can give assistance, but before you offer to Deliver her you must Examine ~~at~~ how much blood she loses & for this purpose you'll make them apply cloths to collect the blood & <sup>when</sup> wet to use clean ones & keep them to let you see them & by that means you'll have a guess of the quantity she has lost - for sometimes they may faint & become weak with losing only a small quantity just as we often see a strong man become sick by

by a small quantity of blood taken from his  
 Arm, & if the discharge was very small altho  
 she was faintest. it would be wrong to deli-  
 ver her. but if the flooding is violent & the  
 woman weak you must deliver her as  
 soon as possible. If the flooding has re-  
 turned three times & the last very violent  
 & the woman within three weeks of her time  
 & is very weak you need not expect the labor  
 pains but must Deliver her as soon as pos-  
 sible. Women at any rate never recover  
 so well after Abortion as when they have  
 come to their full time, When the flooding  
 is violent we must <sup>not</sup> put off Delivery too long  
 for the woman is certain of losing her life  
 & the only time where you should have pa-  
 tience is when they have come to their full  
 time then we may wait for the Labor-  
 pains coming on. as the Delivery will be  
 easier in this case than when it is forced  
 This finishes what I had to say of Flooding.  
 I shall now consider another Disease peculiar  
 to Pregnant Women viz

Trichitis

Frights & Longings & the effects these have on the Fetus.

There is not a more common Opinion that when a woman <sup>have</sup> Longings for any particular thing <sup>as not gratified</sup> that it has an effect upon the Child or when she sees any Disagreeable sight that it likewise has an effect on the Child, & that this Change produced upon the Child is occasioned by the Imagination of the Mother. Must the Imagination of the Mother can produce no Change on the Child & likewise the Longings will have as little effect, for if you look to other Animals you will see marks on them & every other Animal have monsters but here you may say the Imagination of the Mother operates on the Fetus, but in Oviparous Animals where the Imagination cannot affect the fetus yet there are marks on them & there are likewise monsters, it is not confined to Animals but you will see the same in Vegetables, therefore you cannot ascribe the marks on the Children & the Monsters that are produced to the Imagination of the Mother. The Stomachs of Pregnant women are always affected & are in a proternatural state & they long for



for a particular kind of food; if you look into Authors  
 you'll see many cases of Women who have such a  
 liking to one particular thing that they live on it  
 all the time of their pregnancy. Sydenham men-  
 tions a case of a woman who had such a liking  
 to Herrings that she eat 1400 during her  
 pregnancy. If we consider the connection between  
 the Fetus & Mother we will see that the Im-  
 agination of the Mother can have no effect on the  
 Fetus. The Placenta is attached to the Uterus  
 by small <sup>blood vessels</sup> Anastomosing, & they are so small  
 that the blood they convey to the Placenta is  
 not sufficient to nourish the Child, & I said that  
 that the veins of the Uterus poured liquors  
 into perforations in the Internal Membrane  
 of the womb & the Placenta absorbed these  
 Liquors & changed them into proper nourish-  
 ment for the Child & there is no Direct Cir-  
 culation between the Mother & Fetus & how  
 then can the Imagination of the Mother affect  
 the Fetus & besides there are no Nerves <sup>which</sup>  
 go from the Mother to the Fetus. Now  
 allowing that there was a Direct Circula-  
 tion between the Mother & Fetus yet the  
 Imagination

Imagination can have no effect on the Child for the Circulation is entirely out of our power, we cannot increase it in one Arm & to the slow in the other, we can by Exercise, heating stimulating substances increase the Circulation but then it is over the whole Body & if the Imagination can have any effect on the Child it must be by increasing the Circulation in certain parts of the Child & I have shown that the Imagination cannot have this effect. They likewise impute to the Imagination of the Mother the Fooding to & impairing from the Body of the Child so that if a Child has two Heads or only one Arm, it is ascribed to the Imagination of the Mother; but can there be any thing more ridiculous than for a Woman to add any thing to the Child she knows nothing of, she has only a superficial Idea of the Head she does not know the number of Bones &c. in the head & yet she can form one very exactly, this is quite Absurd, but besides it gives her a Creative power & if she can add a Head to the Child, she may as well form a whole Child.

It is also said that she can take away from the Body of the Child as when a Beggar comes to her door wanting an Arm or Leg that the Child will want a Leg or an Arm also so that contrary to her own Inclination & knowledge she takes away a leg or an Arm from the Child & also there is no appearance of that leg or arm <sup>with in a few days of</sup> after Delivery & yet a Child may remain ten years in the womb & yet entire; the absurdity of this is evident for it gives to the woman a Destructive power & a woman who does not want to be with Child may Destroy the Child altogether as easily as to destroy a Leg or an Arm: Likewise the Marked Child. There are few in number when compared with those who are not marked & yet there are few women who do not meet with accidents in the time of their pregnancy. Besides the Imagination of the Woman never acts till after delivery for if you ask the woman before Delivery whether or not her Child will have a mark, she cannot tell you therefore the Imagination never acts till after Delivery — Morriceau gives an Instance of this a woman  
was



was Delivered a Child who was black & the parents were white & when she heard it she ascribed it to her having looked upon a black frequently when she was with Child but the way was she had a Difficult Delivery & the blood of the Child's face was retained & made its face appear black but in twenty four hours it returned to its natural color.

Mankind is very apt to swallow down every thing that is miraculous or any thing that is improbable & thereby stories which appeared to be miraculous have been spread about. immediately without enquiring into the cause, whereas if they had delayed a little longer they might have learned the cause & then would not appear to be in the least miraculous. Thus three Men contending who should do most for their King & Country it was proposed that they should put a leg among boiling water, two of them did it with a considerable pain & the other did it without any & the reason was that he had a cork leg, now this would appear miraculous if the cause was not known, if you look into Turner's life you will see a great

many Miraculous stories. he has taken them all from foreigners & those of the word credit & England could afford him no more than two miraculous stories. he tells one of Polack parents having a white child owing to the Mother looking on a Picture of Andromache when she was with child & of the Foetus resembling other Animals. but when this is the case it is owing to a Defect in some of the parts & not to the Imagination: he has a case also of a child being born with all the bones broke that are usually done when broke on the wheel. ~~which~~ was ascribed to the Mother seeing a person broke on the wheel when she was pregnant, but we have great reason to doubt of it, for he did not see it himself, it had remained 22 years in the Mothers womb & the Eternum was not broke which is always the case when a person is broke on the wheel, so allowing there was such a case it could not be owing to the cause ascribed. If we look into the foundation of these Miraculous stories, we will find that they are nothing at all, like the Woman in Suffolkshire.

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Susfolkshire who gave out that she had delivered  
 Rabbits & many saw & believed it to be true  
 the Queens Man midwife went among the  
 Best & likewise believed it; but at last it  
 came out that in order to get some money  
 (being very poor) she had crammed some  
 Rabbits up her armpits. I could mention  
 many Cases where the Imagination op-  
 erates very strongly & yet had no effect on  
 the Child I may give for an Example  
 Mary Queen of the Scots. but I know a Lady  
 who about four Years ago was travelling  
 to London & in their way a Beggar came  
 to the Chaise Door wanting an Alm. asking  
 Alms, the Lady was then such a short time  
 gone with Child that she was not sure whe-  
 -ther she was with Child or not; upon seeing  
 the Man she was in a great fright & fainted  
 & was very bad the whole time of her preg-  
 -nancy owing to this, she came to this place  
 to be delivered, after I had delivered her the  
 first thing she asked was if the Child was  
 entire in all its parts I told her it was -  
 then she told me the whole story; in this  
 Case.



Case the fetus was young when it is supposed that the Imagination works most powerfully upon the fetus. Therefore I consider frights & Longings have no effect upon the Fetus.

As it happens that Monsters are born & Marked upon Children we must see if we can account for them in a better way.

If the skin is taken off two contiguous fingers & put close together they will join. Hence in this way <sup>lost</sup> veins grow together to form monsters. We see this happen to other animals altho each fetus has a separate membrane & waters yet by one pressing upon another, the membranes breaking & the skin being rubbed off both, when these parts come in contact fibres shoot out from both & by this means are joined together, - we see the same in Twins of the human species, each have their membranes & waters & the Umbilical cord splits in two & serves both & when they press on one another & the skin come off both of them then fibres will shoot out & they will grow together. see Ambroise Paré, <sup>who</sup>

who has a great many Cases of this, there is a variety of them; some where two are joined into one others where there is one head & two bodies & others where there is one body & two heads; but this is not confined to the human species but takes place in other Animals & not only in Oviparous but in Viviparous Animals & therefore the Imagination of the mother cannot contribute to this formation of the Child.

Sometimes Children resemble other Animals but this is owing to a want or change of position of some parts of the body & especially of the Head. I saw a Child born whose frontal bone slanted straight back & the Parietal & occipital bones were very small so that the Cavity for containing the Brains could not admit a walnut it lived for 3 weeks & then Died of convulsion its head resembled by this means more of that of another Animal than that of a Man I saw another full grown Child, it had presented wrong & the Labours was tedious & I was sent for to turn it, which I did & brought it away. it had no frontal Parietal or

Occipital

Occipital Bone & the highest part of the head was the base of the Sphenoidal Bone & will thereby resemble the head of another Animal more than that of the human Species. We have some instances of the head being entirely wanting, sometimes there are three heads but all these Dreadful monsters are not confined to the human Species but is found in all other Animals.

Children are pretty often marked which has been imputed to the effects of the Imagination of the Mother. They are all owing to Diseases of the Child in the womb & was the Skin of other Animals as plain as ours we would see marks on them likewise & we perceive these Marks in Vegetables therefore cannot be owing to the Imagination & we must seek for another Cause & it is owing to fewer or a greater number of the Milinary Glands of the Skin & if they are run together they will form Marks of Different kinds.

I shall now consider the Practical Part. — & begin with The



## The situation of the Child in the Womb.

Disputes have arisen among Physicians about the situation of the Child in the Womb. Some think that the head was at the bottom of the Womb & it turned itself some time before Delivery & their reason is that as the fœtus swims in water & the head of the fœtus when young is like a bladder & lighter than the other parts & thereby will float to the bottom of the Womb. They dispute again about the time that the Child turns itself, some say that at the seventh month the Child's head becomes heavier than the other parts & thereby turns itself at that time others think that the Child does not turn itself till the Woman has taken her Labour. But it is plain that in Natural Cases the head of the Child is always at the mouth of the womb for

1. If the Child was always to turn itself by there being a scarcity of water & preternatural Labours would be more frequent than they really are.

2 The Uterus is so connected to the Child that it has not room to turn itself.

3 Miscarriages are found in all the different periods of a womans pregnancy yet the head always presents.

4 In all those women we examine before the full time the head of the Child is always felt at the Mouth of the Womb, either the 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> or 9<sup>th</sup> months. Therefore the Fetus does not alter its position. The Child in the Womb

lies on neither its Back nor Belly but on one side which is the easiest for the Child & when the Mother has taken her pains it descends with one Ear to the Os pubis & the other to the Os Sacrum.

The Term of a Womans pregnancy is considered Nine months; Women may sometimes make mistakes in their calculation whether they reckon the Lunar or Computed months & if they reckon by the Lunar they will go past their reckoning. Some think that 39 weeks or 273 Days is the time. Some women have been pregnant 44, 45, 46 & 47 weeks & in these cases the Child

Child was as small as one born in the 26<sup>th</sup> or 27<sup>th</sup> month, therefore these Women had misreached.

I find find by observation that the term of a woman's pregnancy is Nine compleat months & Ten Day from the time she was last out of order or having her Menses in due quantity, but this rule is not an exceptionable for I had an Instance lately where it failed, but then it is very seldom that it does fail.

There are some women who always deliver their Children in the Seventh month & never go longer, others at the Sixth but these last never did any service, but very often those born in the seventh month did very well, there are instances given of Children born in the sixth month doing very well but this may be owing to the woman reckoning wrong for when she thought she was six she had been 7<sup>n</sup> months gone with Child & I never yet saw a Child born in the sixth month do well. Some have said that a Child born in the 7<sup>th</sup> month thrive better than those come to the 8<sup>th</sup> month & the reason they give for it is they say that every Child made an effort to be delivered at the 7<sup>th</sup> month & if it failed it required to remain forty days longer



longer before it could recover the shock it received & thereby a Child of 8 months was not so strong as one of 7<sup>th</sup> months; but this is false for a Child of the 8 month is more likely to prosper than one of the 7<sup>th</sup> month & one come to the full time more than one come to the eighth month.

## Of Births

These are divided into three different kinds

**I The Natural** or where the Child presents the head & where it is delivered with great ease & without any Assistance

**II The Laborious** or where the Child presents the head but by various circumstances the Labor becomes tedious.

**III The Prematural** or where the Child presents the feet or other parts of the Body.

Some imagine that Labor corresponds with Conception, & therefore Deliveries happen mostly in the night time but the reason of them taking their Labor pains in the Night time may be better accounted for than the former supposition, we find all sorts of Pains are worst when warm  
in

inbred as Abcumatic, Venereal pains &c & therefore Women is more apt to be seized with her pains when warm in Bed - A certain Gentleman imagines that the Day may be divided into 4 Series, 2 Tiding Series & 2 Ebbing Series, in the Tiding Series Children are born & in the Ebbing Series people Die, but this is all imaginary & without foundation & to satisfy myself I once kept an Account in the Infirmary of 30 Women who were delivered in one twinter 17 were delivered in the Tiding series & 13 in the Ebbing Series & if you look to the Journals in the Infirmary you'll find about an equal number born in the Day & night; therefore this Opinion is Imaginary. I shall now consider

## I Natural Births

Some Women give evident marks of their Delivery being at hand others give no mark till the Labor pains have come on.

The Marks that some women show before the Labor pains come on are. The swelling of the Abdomen fallen lower down, this sometimes happens

happens a Day or two before the pains come on & at other times Ten or twelve days before them & therefore you cannot be certain of the time of Delivery by this only you may be almost certain that it will happen in ten or twelve Days. This is owing to the Uterus falling lower in the Pelvis. Another Mark is a Drooping of Mucus from the Vagina. This is owing to the mouth of the womb dilating a little & a mucous matter colored with blood issues forth, this commonly happens within 24 hours of the pains. Another is a constant Inclination to make water & this is owing to the Uterus falling down further in the Abdomen & not allowing the Bladder to be distended to its full length. Sometimes they have a constant uneasiness for 12 hours before the pains come on which is owing to the head of the Child irritating the mouth of the Uterus.

There is some variety in the natural Birth but the most common way is this. —  
If a woman is come to her full time the mouth of the womb dilates a little & the Childs head presses on the mouth & produces the Labor pains which promote its Expulsion; I have said



said that there are true & false pains & I have already distinguished them; As the Child advances the pains become more frequent & stronger & then the mouth dilates very fast perhaps before the pain came on it was no larger than a shilling & after the pain it will be the largeness of half a Crown, when the mouth of the womb is much dilated you will feel a part of the membranes & by the resistance being taken off that part & the pressure of the Child within they will distend gradually & become thinner & at last break, it happens sometimes that they will break without the woman having any pain & is owing to the mouth of the Uterus being dilated for some time & by the want of resistance at this part they gradually become thinner & thinner & at last break; but the most common time in which they break is half an hour before Delivery, but there is a variety there, they sometimes break in the beginning, sometimes the middle but most frequently at the end of the Labour; After this the pains are much stronger than before & by the woman managing them the Child is expelled. Why

Why is the Child always born in the ninth month? Some Authors have endeavoured to account for this & Disputes have arisen thereby, some say that it is owing to the Child becoming so bulky that the mother cannot carry it any longer but this does not account for it, others say that the Child at this time wants more nourishment; both these Opinions are confuted by this that altho the Child dies at the fifth month, yet it is delivered at the Ninth & thereafter encreases in bulk from the 5 month nor does it want nourishment at the month. This question is entirely in the Dark & cannot be solved & all we can say is that it is an Animal Law which is different in Different animals but the same in the same Genus.

As soon as you know that the woman is in Labour you must provide a proper part for Delivering her in. The posture of the woman in Delivery is different in Different Nations, thus in England, Paris &c. they deliver them half lying half sitting in a Chair bed. in Germany they deliver them in bed & in Scotland they deliver them on the Couch as it is called. The woman

sits with her knees upon a pillow supported by a woman before her & the Midwife delivers her from behind; We should use that position that is the most convenient & which well answers in the greatest variety of Cases & that is the Bed; the inconvenience of the Chair is that by lying for a length of time in it they may catch cold as they will not be so warm as they would be in their Beds; indeed in the Infirmary they are not so apt to catch cold this way as the rooms are very warm & they are not long upon the Couch; but Women very often between the pains are inclined to slumber & thereby they would be better on Bed.

Labor is a contraction of the Abdominal Muscles & Uterus in order to expell the Child & we should endeavour to favour this contraction & we assist it by making firm the Insertions of the Muscles for by this means the Contraction will be the stronger. therefore we must make the hands, feet & the Spine of the back bone firm. All these circumstances happen in the Infirmary the feet is made firm by two pieces of wood. the hands are made firm by them holding the sides of the Couch & their Spine by lying upon their backs on a Mattress. but if a woman were to lie on the floor upon her back, her feet & hands are.



are not made firm & her pains will not have so great an effect as when these parts are made firm & consequently the Delivery will be more tedious, if she is on the Couch a person stands before her with a Towel which the woman pulls & another person is behind her to support her back, by this means all these parts are made firm, but then this position is attended with many Inconveniences; When a Woman is in her own Bed she lies on one side, no matter <sup>wh</sup> but it is generally on her left side for the convenience of touching with your right hand a person stands at the back of the Bed with a Towel which the woman pulls & another person lies at the foot of the Bed that the woman may press upon to support her feet & another supports her back by putting a Towel about her waist & holding her; these Circumstances encourage her pains & adds force to the Expulsion of the Fetus; There are many advantages reaped by being in Bed, the Woman is obliged to turn herself in many positions if the Labour is tedious or 2 hours, & it can be done more easily in Bed than in any other part, she may be inclined to sleep between the pains & this is more easily done

in

in Bed & as it happens sometimes in tedious Labours that the woman faints. It will be best to be in Bed at this time. & there are many other Advantages received by lying in Bed.

If you see the person sometime before her time is expired you can order to have every thing in readiness either appertaining to the Woman or Child. I be sure you have all the Cordials in the House as Spi<sup>t</sup> of Hartshorn Spi<sup>t</sup> of Lavender & Wine & a Bag & pipe in case there should be a necessity for an Injection.

When is the Woman to be put to Bed? If it is the first Child you need not be hasty, but if the Woman has had Children before you may put them to Bed as soon as possible, for the first Labour is never so hasty as afterwards, After the Woman is put to Bed she may lie in any position that is most easy for herself untill the Labour is far Advanced, then you put the woman in a proper position which is to lie on her right or left side but generally it is on the left as it is most convenient for Touching, you Double a pillow & lie it so as to keep it in that position & put it between her knees which supports them & keeps her thighs at a Distance. A person is at the foot

foot of the Bed, another at the backside of the Bed with a Towel or napkin <sup>with</sup> the woman grasps & another supports her back with a Towel as I have already said. The Assistance which you give the woman here is very small you only examine her from time to time not to do her service but to know the progress of the Child, & to receive the Child when it comes forth; You need not examine the woman until she is put to Bed, unless the membranes are broke before you come & you want to know how far the Child is advanced.

It is a common practice to make the Woman change her Dress by putting on a Bed Gown &c. but this is wrong she should not change her Dress as she may be apt to catch Cold.

A little pomatum is recommended to be rubbed upon the External parts when you examine the Woman in order to facilitate the Labour by lubricating the parts, when there are little waters this is very necessary but when the waters are in sufficient quantity this is needless as the waters will lubricate the passage. For a common Natural Labour no assistance is to be given until the Child's head is come forth then you take hold of it, but  
do.



do not do this hastily & after taking hold of the head pull it out gently, but at the necks of Children are short you may take hold of the Falx or the Hairs of the Scapula, along with the head (especially if you take hold of it hastily) which will give the woman more pain than all her labour; if after the head is out the woman has no pains, you must not pull out the rest at this time but wait till the woman has another pain which will be a great deal easier to the woman than taking the Child away when there was no pains. When the head is born & going to pull away the body you must avoid pressing the Child against the Perineum of the Woman as the branches of the Os Ischium will take hold of its shoulders & hinder the Delivery. but you must carry the Child rather upwards & it will come away more easily when the Child is born you'll turn it upon its side for a little that the water which is in its mouth may run out.

The next thing to be done is to extract the Placenta, this sometimes in easy labours is very difficult & in Difficult Labours is very easy. Authors have differed about the time

\* When the head is born the way you take hold of it in order to extract the rest is to put your two forefingers over the hind head & the rest of your fingers under the

& the manner of Extraction, some have recommended it to be extracted the moment the Child is born as they were afraid that by the Uterus contracting, would be a hindrance to its coming away, but the contrary of this is true for unless you give time to the Uterus to contract it would be impossible to take it away & if you endeavour to pull it away in this distended state of the Uterus instead of pulling away the placenta you will invert the Uterus, & this is a natural operation as well as the Delivery of the Child & if time was allowed it would come away easily & we find that in other Animals it is the Business of nature; In order to show this I ordered one winter in the Infirmary that they should not make an attempt to pull away the placenta, & in 2, 3, 4 or 6 hours after the Birth the women took like Labour pains & then it came away with the greatest ease; I have laid it aside as the Women were surprised when they had the after pains as they thought that the placenta was away & gave them

disturbance

the Child & your two thumbs upon the top of the head of the Child by this means you have a firm hold & it is a hold which does not hurt the Child. — so

disturbance when they were removed to their  
 bed & they were greatly surprised at such a  
 bulky substance coming away after they had  
 thought every thing was over. But if two peo-  
 ple were to follow the Different methods, one to  
 extract it immediately after Delivery & the  
 other to delay half an hour or an hour, this  
 last would succeed much better than the other.  
 The nearer the placenta is to the mouth of the  
 womb the placenta will come away with great-  
 er ease & the longer you defer to take it away  
 the Uterus will contract the more & the pla-  
 centa will come at last to the mouth of the  
 womb & by dilating it causes the after pains  
 which happen when the placenta is allowed  
 to remain & thereby is expelled, therefore it  
 is much better to delay the extracting of the  
 Placenta for some time, & in whatever way  
 you intend to extract it never be in a hurry,  
 those who are in a hurry their reason for  
 doing so is that they are afraid that the  
 mouth of the womb will contract & thereby  
 it cannot be so easily extracted afterwards  
 but this does not signify for the contraction  
 of



of the bottom is stronger than that of the mouth of the womb, therefore the contraction of the mouth will be soon overcome; so it may happen sometimes to be half an hour or an hour after the Delivery before the Placenta could be separated & it would be impossible to keep the Child exposed all that time without Injury, or supposing that the Placenta would come away in three or four minutes after Delivery, yet the Umbilical Cord must be cut, & for to give a young Lady the Child after Delivery with the Cord & Placenta to the it, she would be afraid, never having seen the like in her Life, therefore it is proper to cut the navel string as soon as the Child is born, but previous to this we must make a Ligature on it in order to stop the Blood running out of the Child by the Umbilical Arteries, — some have said that it is unnecessary to make a Ligature on the Arteries as after the Child is born the Circulation is stoped in the Cord & the bring Instances from the Virgules that they make no Ligatures on the navel strings but cut them thro with their Teeth, some have imagined that the stoppage of the blood in the navel strings of Virgules was owing to the manner in which they were divided  
for

for the Umbelical Cord is gnawed & tore by the Mother which will stop the flowing of the blood but if it was cut with a knife the blood would flow freely; but this is not the case for if you delay about half an hour after Delivery the circulation of the blood will be stopd in the Navel strings of both the human Species & all Mammals & therefore no ligature will be necessary & it is not owing to the manner of cutting the Umbelical Cord in Animals that there is no hemorrhage but by delaying some time after they are brought forth & you may observe that the first thing that the Kitch does is to look for some time at her young & admire them then she licks them all over & then she divides the Navel string, so there is some time spent after they are brought forth before the Navel string is divided & what shows this to be the case if you take a puppy a little time after it is whelped & divide the navel string with a sharp knife yet no hemorrhage will follow, therefore it is not the manner of Dividing it but the Delay that no hemorrhage follows.

By what I have said you see that the tying of the Navel string is not necessary

if you delay for sometime the dividing of it, but as it is not so proper that the Child should remain that time exposed, & there are few instances of hemorrhages altho it is delayed for a little time when the Cord was not tied & if there is only one Instance of a Child losing blood in 500 in this way, it should determine us to make a Ligature on them all. Therefore the tying the Umbilical Cord is proper.

Now what is the most proper part of the Cord to make the Ligature on? Cheselden and some others pretend that the tying the Cord near the Childs Belly is of the greatest consequence, for if it is far removed from the Belly the Child will be more subject to Hernia's, but this is a mistake for at whatever part it is divided it separates at the same place; but as it would be inconvenient <sup>to</sup> have about six or eight Inches of the Cord lying upon the Childs Belly, which is the most easy way for the Child & therefore about two Inches or three fingers breadth will be a sufficient length. It is of little consequence what you tie it with, some use threads folded in order to tie it securely, others use worsted as the former is apt to cut the cord, but the worsted does not fold properly



properly, others use silk threads folded, but if the thread or silk cord is pretty thick it will not cut the navel string. What I commonly use for this purpose is a piece of small Tape & as it is a little bulky I make the knot very firm. The manner of applying it is quite simple, it is done mostly under the Bed cloaths. you apply three fingers of your left hand upon the Cord next to the Childs Belly which is the proper measure for tying, it is with your other hand you put round the Cord & make a very firm knot & then another to keep the first one fast, some advise to take two turns round the navel string before you make the knots but one is sufficient. I sometimes apply a second <sup>Signature</sup> Signature & cut between them but the only intention of this is to keep the Child clean, as when there is only one signature the Blood which is in the Umbilical Cord by the cutting may fall upon the Child & make it bloody which may surprise the person to whom the Child is given thus bringing that the Child is hurt. After making fast the Signature you cut the navel string, you must cut it about half an Inch from the Signature for if you cut nearer the Signature may

may slip off & the Child may lose some blood, you do this with a pair of scissors, but as this is done under the Wed cloaths you must take great care that you do not hurt the Child as it may be sprawling & tossing its Legs & hands up & down you may be in danger of cutting off a Toe or a Finger so you can carry the scissors concealed in your hand to the Navel string, cut it thro' & then give the Child to Nurse to Dress it. This small operation will take

up two or three minutes in which time the Uterus will contract somewhat & thereby the placenta will more easily come away. Authors have differed about the manner of taking it away. Some extract it by the Umbilical Cord others again introduce their hands up the Vagina & take hold of the placenta & pull it away; the one is attended with pain & the other with no pain & by extracting it by the Umbilical Cord you will be as successfull & with greater ease to the patient than if you were to introduce your hand up the Vagina & lay hold of the placenta & extract it & we see that the  
expulsion

expulsion of the Placenta is a Natural operation like the Delivery of the Child & not as Mr Gifford thought that it always required force to bring it away. It is not once in 20 times that the Extraction by the Umbilical Cord fails & I am obliged to introduce my hand up the vagina to extract the Placenta. The method of extracting the Placenta by the Umbilical Cord is, You take hold of the Cord as near the External parts as you can & pull it gently from side to side & in a little time you will be sensible of its lengthening, when this is the case the placenta is detached from the bottom of the Uterus & stops at the neck of the womb then you use a little force & make the woman press down as much as she can & it will come away; but this is not always the case for sometimes it does not lengthen, then you are sure that the placenta is not detached from the Uterus, therefore you'd delay a little to allow the Uterus to contract more & in the meantime apply warm cloths to the External parts & give her Cordials & about ten minutes after the former trial you may make another  
 which



which may be as unsuccessfull as the former then we  
 may refer for another ten minutes & the next time  
 it will probably lengthen & by a little force will come  
 away. but if it does not come away we must try  
 another method but we may try this method for  
 $\frac{1}{2}$  or  $\frac{3}{4}$  of an hour before we try any other method.  
 As this method will not always do on account of the  
 Umbelical cord being very tender so as not to  
 bear a pull without breaking, & sometimes when  
 the placenta is separated from the Uterus, the neck  
 is so much contracted that you cannot pull it  
 away by the cord unless you refer some time un-  
 till the Uterus contracts so much as to dilate the  
 mouth by pressing the Placenta down upon  
 it & it then can be easily taken away by the  
 Cord, but before this can be done it will take an  
 hour or perhaps upwards & it would be giving  
 the woman Disturbance so it would be better  
 here to use another method to extract it at once  
 The Uterus contracts in different forms, it  
 sometimes contracts about the middle & then is  
 of the appearance of an hour Glass having two  
 Cavities & the placenta fixed to the upper cavity  
 when this is the case you cannot pull away  
 the placenta by means of the Umbelical Cord  
 untill the contracted part is stretched & the  
 Cord

Cord has not strength enough to remove this -  
 contraction therefore we must here use another  
 method which is to introduce your hand into  
 the Uterus along the Umbelical Cord which will  
 direct you to the Placenta which you take hold  
 of & pull away & if there should be any contrav:  
 ed parts in the Uterus, by the introducing of  
 your hand you Dilate them & the placenta  
 comes the more easily away. you can take a  
 good hold of the Placenta for by the contraction  
 of the Uterus it is bunched together, but in the  
 Dilated state of the Uterus it is flat so that you  
 cannot get a good hold of it, so in most cases  
 by taking a large hold (which you can easily)  
 take it will come away with great ease, one  
 hand is sufficient here & you can use that one  
 that you can use best; it sometimes happens  
 that a person may work an hour & not take  
 it away & another one may take it away in a  
 moment, this is owing to the Posture of the  
 Woman, by the uterus being far up so that  
 you cannot reach the placenta, if she is ly:  
 -ing on her back the Uterus is a far way  
 towards the Os pubis & in this posture often  
 you will not reach the bottom of the Womb  
 but if you put her on her side or knees, the  
 uterus

Uterus comes further down & I am sure that in  
 these postures I can reach the bottom of the womb  
 of every person, but I am surest when she is  
 on her knees. You may sometimes hear of diffi-  
 culties of separating the Placenta from the Ute-  
 rus but this never happens for by the contraction  
 of the Uterus the placenta is forced & you can take  
 a good hold of it. & altho a piece of the placenta ad-  
 heres firmly you can take hold of the piece that  
 is separated & by it pull the rest away & as there  
 is nothing but a few small vessels & some hel-  
 lular membrane tore here it will give no  
 great pain to the Woman. It may happen  
 that the Umbilical Cord is broke & now what is  
 to be done? But the case is not much different  
 from the former for all the Use of the Umbilical  
 Cord was to direct you to the Placenta, so all  
 the difference is that you must be sure to lay  
 hold of the Placenta & not take the sides of  
 the Uterus; so you introduce your hand &  
 it may happen that at the mouth of the womb  
 or in the Vagina you may meet with a bul-  
 ky substance but when you lay hold of it  
 you will find that it is of a loose Texture so  
 you'd know this to be Coagulated blood. when  
 you



you have got your hand into the cavity of the  
 Uterus you will know when you meet with  
 the placenta for it is firmer than a clot of blood  
 but softer than the Uterus & if you pinch it if  
 it is the Placenta you will give the woman no  
 uneasiness which would be great pain if it  
 was the Uterus so you lay hold of it & extract  
 it. There is a proper time to do this & an Im-  
 proper time. The Proper time is when the wo-  
 man is seized with her after pains which you  
 cause her to push down as if she had a Child to  
 bear & which assist greatly to the expulsion of  
 it: these after pains owing to the Uterus contr-  
 acting & pushing thereby the placenta to the mouth  
 of the Womb & delating it: The Uterus contracts  
 sooner <sup>or</sup> a woman after the first Child than after  
 wards for the seldomer the Uterus has been dilat-  
 ed it will contract the sooner & if you put your  
 hand upon the belly of the woman a little while  
 after Delivery you will feel a hard Tumor <sup>th</sup>  
 is the Uterus contracted & is about the bulk of  
 a Childs head; the Uterus contracts sooner if the  
 membranes have broke some time before the  
 Delivery for then the Uterus has contracted  
 somewhat before the Delivery, & when the  
 membranes break the moment before delivery <sup>it</sup>

it takes a longer time before the Uterus Contracts. I never met with an Instance where I could not touch the Placenta with the points of my fingers & extract it except one, I put her in all the positions possible, but I could find no Placenta & therefore I left it ~~to~~ Nature & the woman recovered very well, but there was never any appearance of the Placenta coming away altho' it is more than two years ago & the woman continues in perfect good health. You'll see Instances in Authors of the Placenta not coming away untill the next lying in when both Placentas came away together. I never saw an Instance of this, nor of the Placenta not coming away but in the case I mentioned. This finishes what I had to say of extracting the Placenta when the Child is come to the full Time.

### Of Extracting the Placenta in Abortions

There is no Danger in the Placenta remaining in the Uterus after the Delivery of the fetus but it is much better if we can get it away after the Delivery & in an Abortion of the third month it is better to get away the placenta the same Day that the abortion happens; but then there are

are difficulties in Extracting it in Abortions  
 owing to the Navel String being so tender that  
 the least force used will break it & the neck of  
 the womb being so much contracted that it will  
 not admit of your hand so as to introduce it &  
 take it away therefore we must trust it en-  
 tirely to Nature; But there is a pair of Forceps  
 made for this purpose that when the Child is taken  
 away you introduce & extract the Placenta;  
 After the Abortion I can often reach the placen-  
 ta with my finger but if it was to attempt to  
 extract it with my hand by the great con-  
 traction of the neck of the womb, I wou'd de-  
 late it much by my hand & put the woman  
 to a great deal of pain thereby, therefore it  
 is an easier method to extract it with the  
 forceps; the method is very simple you'll in-  
 troduce your finger into the Uterus & touch  
 the placenta then you run the forceps along  
 your finger & take hold of the Placenta &  
 extract it. There is no Danger in allowing  
 the Placenta to remain but then it is uncon-  
 venient, for you cannot attend the Woman  
 the time that is necessary for the Placenta  
 coming away of itself as it may take two or  
 three days or upwards & perhaps when you  
 are



are out of Town she is seized with a violent flooding  
 & pains which are occasioned by the separation  
 of the Placenta & the contractions of the bottom  
 of the Womb to expell it; & when these happen  
 the people are in a great Terror; therefore it  
 is more convenient to extract it at first. This  
 pair of forceps are better for the purpose than  
 those of Dr. Wierstons or Ambroise Paré's as they  
 have blades which may very readily take hold  
 of the substance of the Womb & thereby prove  
 fatal, whereas the ones I use can do no harm  
 that way & will take hold only of the Placenta  
 I do not use Uterine Medicines in order to  
 expell the Placenta as some people do; but I  
 do not know any such medicine, that can  
 act on the Uterus in particular; the medicines  
 used for this purpose are heating & stimulat-  
 ing & may rather do harm; but when the  
 Placenta is not to be expelled by these medi-  
 cines, for the expulsion of the Placenta is a  
 business of nature, & if it was left to nature  
 it may remain two or three Days before it se-  
 parate but it is most commonly done in  
 that time sometimes indeed it remains nine  
 or ten Days but never above it & therefore I  
 would

would never give a woman any of these medicines as they will not forward the Expulsion of the Pleacenter but may hurt the Woman. & it is better on that account to trust it to Nature. When the Abortion happens in the 5<sup>th</sup>, 6<sup>th</sup> or 7<sup>th</sup> month the cavity of the womb is so much enlarged & the Neck & mouth so much dilated that you can introduce your hand & take it away the same way as when the Child is come to the full time. This finishes what I had to say of Natural Births & the management of the Child immediately after Delivery. I now to consider

## II The Laborious Births.

They require more skill than the Natural or preternatural Labours for in the preternatural Labours there are few Rules to be observed & those very easily remembered, but it requires a good deal of skill to know how much the Woman can suffer or the Child can suffer with safety, likewise when to attempt the Delivery for if too soon you may endanger the life of the Child or the Mother or too late you will likewise endanger the Life of the Mother & Child. A

A Laborious Birth is only a greater degree of a Natural Birth. the one does not exceed twenty four hours & the other may exceed forty eight.

The Laborious Births are divided into 2 different kinds

1 Altho the Labor is tedious yet the person is delivered without the Assistance of Instruments.

2 Where it is impossible to Deliver without the Assistance of Instruments.

### 1. Without Instruments.

If twenty four hours have elapsed from the time the Uterus begins to Dilate to the Delivery then it is this kind of Laborious Birth. The other is when three or four Days have elapsed from the time the Uterus began to Dilate & at last Instruments must be used to extract the Child. But there is no rule when to use Instruments as sometimes it may be necessary to use Instruments in 24 hours after the Uterus begins to Dilate & at other times altho it has continued 2 or three days yet may be delivered without Instruments. Thus if the pains have been very strong & the woman being Delicate & is now very weak altho she has not been in Labour 24 hours it will be necessary to use

@ & the Child does not advance. H



use Instruments in order to save the Life of the Mother & perhaps the Child, again if a Woman has had trifling pains & is strong & Robust & not weakened altho' she has been in this way two or three Days yet we are not to use Instruments. However I shall give a few general rules A Woman is never in danger who has been 24 hours from the time the Utterus began to Dilate if the pains have not been strong & not much impaired in her strength.

A woman is never in Danger when the mouth of the womb is not dilated altho' she has been forty eight hours in Labour & the pains strong.

A woman is never in Danger when where the mouth of the Womb is Dilated but the Membranes are not broke & the pains pretty strong.

In all these Cases there is no Danger of Instruments being used as in the first there are not pains sufficient to expell the Child & in the two last the Child is hindered from Advancing.

We are very apt to judge from the Time only but this would be wrong for we would then use Instruments in some Cases where there were no occasion for them & sometimes Delay too long the using of Instruments where they were necessary & lose the Lives of both mother & Child, but

but we are determined by other Circumstances & it would be impossible to mention them all & are to be learned by Experience only. You'll find a great variety in Common Natural Labors with regard to time, thus some will be in six, which is very quick, others in twelve, which I look upon to be quick also & others twenty four hours from the time the Uterus begins to dilate till the delivery. None of these are Laborious Births but if it exceeds the last period & the pains have been strong & frequent then it is a Laborious Birth. A Laborious Birth depends upon many Causes, & this or may be owing to the Mother or Child.

### 1<sup>st</sup> The Mother.

1<sup>st</sup> Among the first Child. Women are always worst in their first Child perhaps may be 36 or 48 hours in Labour where after they have born a few Child. Even they will only be a few hours. Some pretend that they are no worse in the first Child than afterwards & give some Cases where they have been easier in the first Labor than afterwards, but this is not the Case, there may be a few instances of this but Experience shows that they are always worst in their first Labour.

2<sup>d</sup> When the Pelvis is rather a little narrower than

than it should be they may be in Labour for 36 or 48 hours & if you allow time for the Child to mould its head to the Cavity, the Delivery will be performed without the Use of Instruments.

3<sup>d</sup> What has been thought a very frequent Cause of Laborious Births is the oblique Situation of the Uterus, that if the bottom of the womb falls to one side, the mouth is directed to the other, thus if the bottom of the womb falls to the Right side, the mouth is Directed to the left or if the bottom fall forwards the mouth is backwards & vice versa. But this is not such a frequent Cause as is imagined, for the Uterus at the full time is about twelve Inches from the fundus to the mouth which last is connected to the vagina & the body of it is loose & allow that the bottom should move four Inches to one side yet there is not a great alteration in the mouth, for it will move to the side only the 1<sup>st</sup> part of four Inches, & if you examine the mouth of the womb in Laborious Cases you will almost always find it directly in the center of the Pelvis this shows that this is a very rare Cause.

4<sup>th</sup> The External parts & mouth of the Uterus become Rigid; this is often the case with persons who are old before they bear Children,

in



in examining them you'll easily know when this is the Cause, for the mouth of the womb is found to be very thick whereas it is common-ly very thin, so allowing the bottom of the Womb to be an Inch in thickness & the mouth common bases to be  $\frac{1}{2}$  an Inch, here the exertion of the bottom of the womb to Contractions may soon overcome the resistance of the neck & mouth. Again if as is in this case the bottom & the mouth of the womb are both one inch in thickness, they are then on a par & it will require a greater exertion of the bottom of the womb & very strong & frequent pains to overcome this resistance, but if you will have patience here the Delivery will go on very well.

5<sup>th</sup> Another Cause of a Laborious Birth is the Thickness of the membranes so that they do not give way & thereby the pains do not make the Child advance as it is hindered by the membranes, untill such time as the Membranes are broke the Child will make no progress altho the mouth of the Womb is sufficiently dilated & if we would have patience till the Membranes break the Delivery would go on very well.

6<sup>th</sup> Slack pains & this is the most common Cause of a Laborious Birth & this may be owing to

owing to a variety of Causes as

1 Any thing that prevents the head of the Child from pressing against the mouth of the womb & if there is no pressure against the mouth of the womb the pains will be slack and

2 Altho there is something pressing against the mouth of the womb yet if it is not bulky & weighty there are slack pains, thus in protracted Labours there are often strong pains at first but afterwards are trifling, this is owing to the waters coming down in a bulky form & pressing upon the mouth of the Uterus causes strong pains but when they come away there is only a leg or an arm at the mouth of the Uterus which does not press much upon it & thereby the pains are slack. so if any thing hinders the head of the Child from pressing against the mouth of the womb or from doing it in a large form there will be slack pains. & this may be occasioned by

1 Where the Pelvis is too narrow at its termination as to prevent the head of the Child from pressing on the mouth of the Uterus or if it presses it is not in a bulky form

2 Altho the Pelvis is of a good size yet when the head of the Child is too <sup>large</sup> the same will happen

When the Navel String <sup>is twisted</sup> so often about the Child that it becomes too short to allow the Child to press upon the Mouth of the womb.

4 The woman's first Child, in this case the pains are always slack, it is difficult to account for this but I imagine it is owing to the Womb at this time is unacquainted with the method of Contraction & thereby does not contract so much as what it does afterwards. This is only a conjecture but be it as it will Women are more liable to have slack pains in the first Child than afterwards & you may often see that altho' they have slack pains in the first Child they will have very strong pains in the second.

2 The fault being in the Child.

7<sup>th</sup> A laborious Birth may be owing to the wrong position of the Child, thus if it present with the hind head towards the Os Pubis & face towards the Os Sacrum, or the face towards the Os Pubis & hind head towards the Os Sacrum, here the longest part of the Child's head is towards the shortest part of the Pelvis, as the natural way of the head descending is the one ear towards the Os Pubis & the other towards the Os Sacrum. In this case much stronger pains are necessary to force the Child



Child down as the bones of the head must alter their shape & model them to the Cavity, in this case the Os frontis & Os Occipitis will be pressed inwards & the Os Parietalia will be forced at a greater distance from one another. In this case the Labour will be more laborious

8<sup>th</sup> When the Umbilical cord is twisted about the neck of the Child & makes it so short that the Child cannot come down, the twisting of it once or twice will not hinder the Delivery but if it is three or four times twisted about the Child's neck it will make a tedious Labour.

9<sup>th</sup> When the Child is Dead. It is difficult to account for this that altho the sore is less yet the Labour is more tedious, some have thought that it was owing to the Living Child making way for itself by its motions which could not be done by a Dead child, but this cannot be the case for many living Children do not move until they are born & yet the Labor grows venough. The way I imagine is that if the Child has Died about three weeks before delivery the neck is not sufficiently dilated nor the orifice thinned at that time & it remains the

the same at the full time as the Child does not increase & in this case the thickness of the neck of the Womb will be much about a par whereas where the Child is alive & come to the full time the Bottom is thicker than the neck of the Uterus; therefore in this case it will require a greater action of the bottom of the Womb & Abdominal Muscles to expel the Child as the resistance is greater. When the Child has been Dead some time in the Uterus, & sometimes happens that it is three times bigger than it should be & this is owing to putrefaction being begun by which the Air is rarified & takes up greater space & if you cut any of the muscles & throw it among water it will swim on the surface. When the Child is so large there must be a Laborious Birth.

Now what should be done when no Instruments are to be used in order to facilitate the Labour, for this we must consider the causes separately as the method is different in each and  
 1<sup>st</sup> When the First Child. If the Woman is plethoric we should use bleeding which relieves her by cooling her, causing the vessels to

to lengthen & to use a greater Exertion when  
 then pains come on. If there is great Rigidi-  
 ty of the External parts apply fomentations  
 or Bags of Chamomile flowers boiled in wa-  
 ter & renew them when they cool. When the  
 Labour is Tidious the parts may become  
 Rigid by exposure to the cold air & therefore  
 in all Tidious Labours apply a fomentation

2<sup>d</sup> The Pelvis too narrow. Nothing but  
 patience is necessary, to allow time for the Child's  
 head to be modelled to the Pelvis & after the head  
 passes the Perineum the Labour is very quick.

3<sup>d</sup> The oblique situation of the Uterus. This I  
 said very seldom happens, but it should be the  
 Cause you can with your finger press the <sup>mouth of the</sup> Ute-  
 rus to the center of the Pelvis.

4<sup>th</sup> Rigidity of the External parts & mouth of  
 the Uterus. This I said happens to those Women  
 who are old & in their first pregnancies, we  
 should here apply fomentations to the External  
 parts & if we see the person some time before  
 she comes to her full time we should order her  
 to sit over the steams of warm milk & water  
 every night for some time before she expects  
 her pains. if the Labour is Tidious we should  
 bleed her as we should indeed perform an-  
 every



every woman who has a severe Labour, & apply  
Emollient Substances to the parts & fomentations  
5 The thickness of the Membranes. In this case  
you must break them, but sometimes you are  
not able to do it with your finger as when  
you press it inwards it yields untill it  
comes upon the Child's head & then you cannot  
press any further, & you cannot take hold  
of them with your finger & Thumb for they are  
so slippery; what you'll find answer any  
well is the probe of the female Catheter, but  
as Women are averse to all Instruments be-  
ing used & you cannot introduce this with-  
out being seen, I therefore make a show  
of putting them to the Touch & I rub the nail  
of my finger upon them & wear them so thin  
as that they will break at the next pain &  
you will find this the best way for if this La-  
bour was tedious & you used an Instrument  
to break it w<sup>ch</sup> could not be done without  
her knowledge she would put the blame upon  
you for breaking the membranes.

7 The wrong posture of the Child's head  
Here you can do nothing for you cannot  
turn the head as you cannot take hold of

it by being so slippery & therefore you must allow time & the Child's head will adapt itself to the cavity. Many Remedies have been employ'd to promote the Labour & to expell the fetus soon; but I do not know any medicine that can do this & suppose there was a medicine that could have this effect in one of the above causes yet it could have no effect when it was owing to any of the other Causes. & in some of the Causes it is impossible for any medicine to have any effect as when it is owing to the wrong position of the Child's head, to the narrowness of the Pelvis. Yet some people have a medicine which they give in Laborious Cases let the Cause be what it will, but it can have no effect at all. But when patience is necessary in order to amuse the patient & to make her think that you have not forgot her, you may give her some simple medicine which you can say will facilitate the Labour & you should study to protract the giving of it until you think the Delivery is near, as if you think she may be 24 hours in Labour if <sup>you</sup> give her some medicine about the 22 & she be delivered in the 24 a great deal will be imputed to the medicine. & you should always encourage the Woman

Woman by giving her some Innocent thing a very good way is when you see patience is required you can tell them to call in an hour & you will give them a Medicine, when they call, detain them some time longer & then give them an Innocent mixture & she is to take two spoonfulls every 3 or 4 hours & perhaps before she has taken three Doses she will be Delivered & then great effects will be imputed to the Medicine.

You'll find a variety of Accidents which happen about the time of Delivery which may surprise you if unacquainted with them & I shall therefore mention some of them.

Some Women when they come to their full time are seized with violent sickness & no pains but they will not Cure of this till the Labour pains are come on & then it goes off & is owing to the Child irritating the mouth of the Uterus & therefore when they are seized with Sickness & come to the full time I am sure that the Labour pains are at hand; however you may give them some Cordial.

Some Women have sickness all the time of their pregnancy owing to an Irritation being made on the Uterus by the pressure of.



of the Abdominal Muscles upon the Intestines which came down upon the Uterus & Irritated it. you cannot remove this till Delivery. —

When Women are come to their full time they are often seized with violent Shiverings. —

This may alarm you as you may think that it is the Ague or a Weed, in this case you may put them to bed & apply warm things to their feet & bottles filled with warm water & some Cordials, but this is a sure symptom of the pains being nigh & when they come on they will be removed. After the Labour is far advanced about two or three pains before they are Delivered they are often seized with an Universal Shivering, which is owing to the head of the Child pressing on the large Nerves which come out of the Pelvis. —

When Women are come to their full time they are often seized with Fainting fits.

If there is no degree of Hemorrhage here there is no danger & all you have to do is to give some Cordials which you should have always ready at hand.

They are at this time likewise liable to Fluxes the same Irritation on the Stomach which causes Vomiting may cause looseness when applied to the Intestines. I now consider

## 2. The Delivery with Instruments

If a woman has been in Labour 36 or 48 hours & the membranes broke for twelve hours before this, the mouth of the Womb Dilated & the Child far advanced near the Os Externum & the pains which were before strong are now becoming trifling, here we must have recourse to other methods & there are two methods to do this

- 1<sup>st</sup> To turn the Child & bring it away by the feet.
- 2<sup>d</sup> To use Instruments to bring it away. -

1<sup>st</sup> It is extremely difficult to turn the Child when the Labour is so far advanced & by the Childs head being so slippery you cannot get proper hold, but the Difficulty arises from the Membranes breaking for such a length of time before, by which the Uterus has contracted close upon the Child so that there is no room for to turn it & if you attempt it by pushing the Child further up & turn it you may burst the Uterus which will prove fatal to the woman & therefore we must have recourse here to the

- 2<sup>d</sup> Instruments & those employed here are the *Fillet* & *Forceps*. w<sup>ch</sup> I shall consider.

The

The Fillet. This is used with more danger than the Forceps, it is very difficult to get it over the head of the Child & when you have got it over it is ready to slip off but suppose it did not slip, it requires a great deal more force as it does not bring down the head in such a proper position & by that greater force being used it Galls considerably the Head of the Child, therefore the forceps are preferable. There are a great variety of the Fillets but the Whale bone one is the simplest. The edges of a piece of Tape are sewed together & a round piece of whale bone is introduced, you double it & introduce it & put it over the hind head of the Child, then you withdraw the whale bone & pull out the head of the Child, but as it has not a very firm hold of the hind head it is very ready to slip over the head & if you put the fillet over the Child it raises up the head so that it comes down in a larger form & as the parts will require to be more distended it will be more painful & greater force will be requisite; therefore the Fillet is a bad Instrument. There are many more  
 Fillets



fillets but they are all more complicated than the one I have mentioned & consequently worse. Therefore these should be laid aside.

The Forceps They are a Modern Instrument invented about a century ago & even when they were introduced by the Chamberlains they were known to few untill Gifford made them publick. They have undergone many changes since their Invention. Pussac was the first who changed them after the Inventor but the blades are narrow & the handles long, here the blades cannot take such a firm hold & by the handles being long they are not so manageable & portable.

Gifford made some alteration on the blades he made them broader & hollow but made no alteration on the handles. Smellie made wooden ones, but if they were small enough they would be too weak & if strong enough they would be too clumsy & take up too much room. he made them broader of the blades & shorter of the handles. he saw the inconvenience of <sup>this</sup> & therefore had recourse to steel ones & covered them with Leather which is very convenient as by it they make no noise

& they can be used without the woman knowing, which they sometimes have an aversion to, & you can rub them over with Pomatum to make them go easier in. Dr Purton made some Alterations on it, but his instrument is worse than Dr Gusae.

You'll find a variety in the Curves of the blades, but much more depends on the Shelo's head being far advanced than on the blades being curved or straight. for if the Shelo's head is far advanced they may be delivered by forceps of any figure but if the Shelo's head is not far advanced they cannot be delivered by the forceps, let them be of any figure you please. Dr Purton delivered many with one blade of the forceps only. I mention this to say that there was a secret in Holland & nobody was Allowed to practise Midwifery unless they were possessed of this secret, it was made publick at last by Mon<sup>r</sup> Levean & this secret was Delivering with one blade of the forceps & he says that he used it nineteen times in one Year with great success, but there is not a person of the greatest practice in London or else where who is obliged to use the forceps.

nineteen

Twenty times a year, so there is a presumption that he had used them in many cases where there was no occasion for them, & the forceps should not be used in every case unless there are an absolute necessity for them as you may sometimes hurt the uterus & other parts by them.

### Method of Delivering by the Forceps

The cases where the forceps are proper are when the Childs head is low down in the Pelvis near the Os Externum, & when the Childs head is up in the Ventr of the Pelvis they can be of no Use. Before you use them the Labour pains should be pretty much gone or if they have been very considerable the whole of the time & the Childs head low down then we must have recourse to the forceps. But in the first place you must know the position of the Childs head & for this purpose you must introduce your hand laterally up the vagina. The method of Touching will not answer here for by touching you may touch the head but then you cannot tell the position of the head by



by the touch & not even the part of the head you touch & therefore you must introduce your hand & you must do it laterally as it is to be expected that the Childs head is in the Natural position & you'll get hold of the Ear of the Child more easily - therefore - you'll introduce your hand up within the pelvis then you feel for the Ear & by it you know so much of the position, but you do not know to what part the face is directed but by a more accurate examination of the Ear you know that also, you <sup>know</sup> where the face is directed by the fore part of the Ear & where the hind head is Directed by the back part of the Ear. therefore by the Ear you know the exact position of the Childs head.

Now suppose the Childs head in the natural position with the face to the Os Sacrum, the hind head to the Os Pubes & the Ears to the Os Iliac, but before we introduce the blades of the Forceps we must enquire into the state of the Pelvis, if the woman has not passed water for some time & it distended with it, we must draw it off with the  
Syringe

Catheter in order to make more room or if the Childs head preps upon the Urethra so as that you cannot introduce the Catheter you must push up the Childs head & then introduce the Catheter & draw off the water. The next thing to be done is to put the Woman in a proper posture, she must be laid across the bed with her Breach equal with the fore side of the bed you must have several Assistants to support her Legs, you must sit on a low stool below the woman, & rub your hands over with Pomatum in order that your hand may go in the more easily & the introducing of your hand will dilate the external parts & when you have introduced your hand to the ear of the Child you introduce one of the blades of the forceps & it is best to introduce the left hand blade as by this you make the joining above which is the most convenient; after your hand is up to the Ear of the Child you work up the left hand blade gently upon your hand until it is a little over the head of the Child & then withdraw your hand & hold of the handle with the left hand, then you introduce your <sup>right hand</sup> into the other lateral part of the Pelvis &

reach  
 & the introducing your hand is necessary on another account for if you introduce the forceps without being conducted by the hand, as there is a flap of the vagina where it joins the Uterus you may push the forceps thro the vagina instead of conducting them to the Uterus

reach the other ear of the Child & by pressing the  
 head of the Child to the opposite side you fix  
 the left hand blade of the forceps & then your  
 left hand is at liberty then introduce the other  
 blade along your hand till a little above the  
 Ear of the Child & then withdraw your hand  
 & lock the forceps; it is better to have them to  
 lock without the vagina for if it was with-  
 in it you may happen to punch it by the  
 locking of them, & when the forceps lock  
 you are sure that they are right. you  
 need not be in a hurry in tying the handles  
 as you do not know but what the woman  
 may have pains in a little & you must  
 then extract it, but when there is a long  
 time between the pains as it would be uncon-  
 -venient for you to hold them all the time  
 it will be proper to tie them & before you  
 begin you should ask a Ribband which  
 will make the woman think that you  
 are to use it as a fillet & they have a good  
 opinion of this. then every time the wo-  
 -man takes her pains you work from  
 side to side & when you have got the  
 head without the arch of the Os Pubis  
 you



you must change your position for instead of  
 being below you must be above the woman &  
 pull upwards as you see this is the natural way  
 for as soon as the head is without the Arch the  
 head goes towards the woman's Belly, therefore  
 we must imitate this & pull with the forceps  
 upwards with one hand & with the other support  
 the Perineum, after you have got out the head  
 you untie the forceps & take them away &  
 you will easily make the Body follow the head,  
 & when the head is low down in the pelvis you  
 seldom miss delivering in this way but when  
 high up, it is impossible to use the forceps. -  
 When you first practise the vagina some-  
 times will be so much contracted that you  
 think it will not allow the introduction of your  
 hand, but altho it is seemingly much contrac-  
 ted yet by putting in your hand gently & dis-  
 tending the parts gradually you'll introduce  
 your hand with great ease; sometimes the  
 head of the Child is so far down that you can-  
 not introduce your hand & here you must  
 push up the head of the Child a little & you  
 may do it easily; sometimes the Os uteri is  
 so much contracted upon the Child that it  
 will not admit your hand between the head

head of the Child & the Uterus so in this case as you cannot conduct the forceps & you do not know the position of the Child's head you must introduce them at random & you must support the head in the natural posture as this is the most common case & the pushing the blades thro' the flap of the vagina cannot happen as the Uterus is dilated equal to the size of the Child. Sometimes it is difficult to introduce both the blades of the forceps laterally, you may introduce the one but not the other, but you may introduce it behind & then work it upwards untill it is lateral. You are always sure that the forceps are right when they lock & the handles are together, for they are not right unless when this happens. It is very Difficult to introduce them both so as to make them lock for if the one blade be further up than the other or a little turned they will not lock. Sometimes when you have got a tolerable hold they will slip & in this case you must fix them again.

The extracting with the Forceps is more or less impracticable according as the head of the Child is more or less advanced, when the head is pressing on or near to the Os Externum  
 this

this is a proper case for the forceps but when the head of the Child is up at the bottom of the pelvis it is impossible to do any good with the forceps Dr. Smellie uses them in a variety of Cases in many of which they can be of no service. - The best hold you can have with the forceps is the blades over the Ear, the joining towards the hind head & the Extremities of the blades towards the Chin, by this way you not only make the forceps touch with more points the head of the Child & thereby have a firmer hold but you bring out the head in its smallest form with the hind head first.

There are three different postures of the head of the Child

- 1 The Natural Position: I have given the Directions for the use of the forceps in this case
- 2 When the one Ear is towards the Os Pubis & the other towards the Os Sacrum, this is the proper position for going thro the Ventr of the Pelvis but when at the Perineum it is not a forceps case & you cannot make use of them unless the Child is low down in the Pelvis, & when it comes low down the head should be in another posture the face to = wards the Os Sacrum & the hind head towards



towards the Os Pubis, but then as is in this case the one ear is towards the Os Pubis & the other towards the Os Sacrum the extraction will be more Difficult as the longest part of the head is to the shortest part of the Pelvis. You must introduce your hand to know to which side the face is Directed in order to bring the hind head into the center of the Pelvis when this is known you introduce your forceps in the way Directed & give the head a quarter Turn which will bring the face to the Os Sacrum & hind head to the Os Pubis & then extract the Head as before.

3 The face to the Os Pubis & the hind head towards the Os Sacrum, this is an unfavorable Direction as the head comes out in a large form & when you find the large fontanelle distinctly you may be sure that this is the position, but you must not take the small fontanelle for the large one, & to make sure you can introduce your hand to the ear of the Child which will show you with certainty. you Introduce the forceps as before & extract it. some advise to turn the head of the Child & Dr Smellie's method is

is to push up the head of the Child & give it a quarter turn, but by making this turn it will serve no purpose as the longest part of the head will be to the smallest Diameter of the Pelvis, if there is no disproportion of the head & that is as long the one way as the other, it may be delivered in this way but it will be as well to deliver the Child as it presents for if the Pains are strong & a Disproportion in the head, you will be obliged to give it another quarter turn before you can extract it which will bring the hind head to the Os Pubis & the face to the Os Sacrum. The 2 position is the worst as you are obliged to give it a quarter Turn & reduce it to the first & Natural position; In the 3 position the Child should be brought away as it presents as we often see this happen done with tolerable ease & without any assistance. If the difficult Labour is owing to the Pelvis being too narrow or the Childs head too large & the bones of the Head will not yield in this case the forceps will do no service. There are other positions which are the  
face

face cases which may be reduced to 3. The 1<sup>st</sup> Head the  
 Position where the face presents with the Chin  
 to the Os Pubis & fore head to the Os Sacrum. The 2<sup>or</sup>  
 5 Position is where the face presents with the Chin  
 to the one Os Ilium & the forehead to the other. The 3<sup>or</sup>  
 6 Position is where the face presents with the Chin  
 to the Os Sacrum & fore head to the Os Pubis.

These three positions are worse than the former  
 three or Grand positions for the Labour pains  
 cannot force the Child down unless the Child is  
 very small for the Child must come down in  
 a manner Double for both head & Chest come  
 together. The way you know that the Child  
 presents the face in any of these ways is when  
 you put the woman to the Touch you find  
 some inequalities as the Nose Eyes mouth &c.  
 but this will not tell you which of the three  
 positions it is in for this purpose you must  
 introduce your hand into the Vagina & carry  
 it up to the Child's head & by finding the Chin  
 you'll know exactly the position. When any  
 of these cases happen you should endeavour  
 to reduce them to one or other of the three prin-  
 cipal cases, thus in the 4 position you must  
 push up the body & pull down the head &c.  
 thereby



thereby bring it into the 3<sup>d</sup>. In the 5<sup>th</sup> position by pushing up the body & pulling down the head you reduce it into the 2<sup>d</sup>. And the 6<sup>th</sup> position by pushing up the body & pulling down the head you reduce it to the 1<sup>st</sup> position. When you have reduced the face bases into one of the three principal positions you introduce the forceps & do as ordered in these cases.

But the forceps will not answer in all cases when the Childs head sticks in the Recess of the Pelvis & is owing to the Pelvis being too narrow or the Childs head being too large which is all the same the forceps can do nothing or if the head is in a wrong position & the want of pains (which is a very great want) if she has not been long in Labour by having patience the pains may come stronger which will utter the bones of the Childs head & thereby may be Delivered but if long in Labour & the pains which were strong before are now become weak then you cannot expect a Delivery in the Natural way & the forceps can be of no Use. Or when there is a very great Deformity of the Pelvis we cannot expect a natural Delivery & this is known by the head appearing of a sharp form.

but sometimes the Deformity of the Horn of the Pelvis is not very great yet it will not be a Natural Delivery & the forceps will be of no use owing to the largeness of the head & its great Ossification so that it will not yield. At other times the bulk of the head is so great that the Childs head cannot come down as in a Dropsy of the head. In all these cases you may try the forceps as they can do no harm. but if they fail we must have recourse to other Methods but the difficulty is to know when to use these methods for if too soon the Child will be destroyed which might be otherwise saved & if too late the pressure of the Childs head on the parts for such a length of time may cause an Inflammation & endanger the life of the Mother but if the Child is Dead you may do it as soon as you please, the Child may be dead either in pregnancy or labour. but the marks of the Child being Dead are very uncertain. I shall give the marks in the time of Pregnancy. When the woman does not feel the Motion of the Child. when some Accidents have befallen her in the time of pregnancy & moving a little after

after this & then not feeling it any more, does  
 not encrease in bulk for some weeks before the  
 full time but rather Decreases, & the Woman  
 feeling the Sensation of Coldness in her belly instead  
 of a warmth rather greater than Natural which  
 is always the case when the Child is alive. These  
 are the Marks of the Child being Dead in the  
 time of pregnancy, but they are uncertain  
 for there are some Women who do not feel the mo-  
 tion of the Child yet they are Delivered of a Living  
 Child. But if the marks are uncertain in the  
 time of pregnancy they are still more uncertain  
 in the time of Labour, for in this last case you  
 have but only a few hours when you must de-  
 termine whereas in the former you have se-  
 veral hours & thereby you can lay no stress  
 on feeling the motion of the Child as it may be  
 quiet for these few hours. One mark is when  
 you touch the head it feels very soft as if  
 the Cranium was filled with water instead of  
 Brains, for when putrefaction takes place  
 on the Brain it becomes soft. When you  
 feel a large Tumor on the head, it sometimes  
 happens in Difficult Labours that there is a  
 Tumor on the head & the Child alive, but then  
 this Tumor is hard; but if the Tumor is very  
 soft



soft & large you may be sure that the Child is Dead. The Liquors coming from the Vagina being Putrid, but this does not happen unless the Child is dead for some time. The pulsation of the Arteries of the Childs head not being felt but this is not a sure mark the best way is to introduce your hand & take hold of the Navel string & if the pulsation is stoped there you are sure that the Child is Dead. The scaly skin coming off when you touch the head of the Child but this does not happen unless the Child has been Dead for some time. These are all the marks of a Dead Child & many of which are very Uncertain.

I shall now suppose a Woman has been 36 or 48 hours in Labour, the membranes broke twelve hours before this, the pains which before were very strong are now become very weak or entirely gone & the Childs head not far advanced being up at the Perineum of the Pelvis, you may try the Forceps but they will very often fail here & therefore when they fail we must open the Childs head.

### Opening of the Childs Head.

It is within these few years since they delivered in a Mechanical manner. They used before

before that time to Dilate the vagina & make  
 room for the Child to come away & for this pur-  
 pose they had Specula Matricis of different  
 kinds, but they can never be of service, for  
 after you have Dilated the vagina with them  
 & then withdraw it the vagina will again  
 contract to its former size or if you allow the  
 Instrument to remain it will hinder the de-  
 livery as it will be in your way so that  
 you can do nothing & the hand is the best  
 Speculum Matricis that I know of, for by  
 the hand you can use as much force & dilate  
 it as much as with these Specula & you can  
 do it by the hand with more ease to yourself  
 & less pain to the Woman & therefore the hand  
 is better than any Speculum Matricis what-  
 soever. But when the Mechanical way  
 was introduced they did a great deal of  
 mischief for when the labour was a little  
 tedious & presenting wrong they endeavour-  
 ed to lay hold of any part of the Child whether  
 Leg, arm, &c. & pulled it away with the Crochet  
 & thereby destroyed many Children that  
 might have been saved & by fixing the Claws  
 of the Crochet sometimes by not taking  
 proper

proper Care into the Womb of the Mother & killing her also; for this see Le Motte's observations who gives several Cases of this. The worst way is that of the Child's head is too large for the Pelvis to diminish the size of the Child's head & extract it. There are a variety of Instruments for this purpose & in order that you may have a notion of which is the most preferable. I shall give the properties of the one we want & is most fit for the purpose. You should have an Instrument that you can introduce to the Child's head with safety to the Mother & one that we can perforate in any part of the head which is most commodious for ourselves & one that can make the Opening large enough so as to allow the remains to be evacuated. Morriceau used a knife of a Triangular form, but this possessed none of the properties above mentioned - for it was not safe as you might cut the vagina in the introducing it; it was too sharp & thin & only could cut thro' between the Sutures & not thro' the bones as is sometimes necessary & then it only made



made a simple Incision & when the Instrument was withdrawn by the pressure of the parts upon the Child's head, the Incision will be closed up & the brains will not be evacuated & therefore improper.

La Motte used a common Crooked History but this day under the same Disadvantages you might have introduced it with more safety but then it could not cut thro the bones but only between the sutures & then you made only a simple Incision. —

Sir Fielding Pullet contrived an Instrument for this purpose after the form of M<sup>on</sup> Petit's Lancet for opening Tumors in the Throat; it consisted of a Lancet with in a sheath & had a spring & when you press the Lancet out of the sheath it would go in of itself when the pressure was taken off; but when the bones are firm it will not cut them thro' & also it makes only a simple Incision; & it is also attended with great Danger, for if you fix the Instrument slanting upon the Child's head & push out the Lancet, it may go into the Arteries & kill the woman. —

Dr Simpson of St Andrews contrived a small

small knife with a Ring at its end, you fix  
 the knife by putting the Ring upon your  
 middle finger & conduct it to the Childs head  
 & pierce it. but then this knife will do no  
 better than La Matte's Crooked Victory  
 The Common Scissors have been used by  
 some for this purpose but they are too short  
 & you can only use one hand & when they  
 have pierced the Foramen the run up  
 into the joining & by that you cannot  
 enlarge the opening & also you can use on-  
 ly a finger & a thumb by which you cannot use  
 much force. The long Scissors are used which  
 is the best Instrument of any for you can in-  
 troduce them with safety by first introducing  
 your hand & sliding the Scissors along it &  
 the Scissors are strong & Sharp & you can use  
 a great deal of force by which you can easi-  
 ly pierce the Bones by you working them  
 back & fore & after you have pierced the Bone  
 in order that the Scissors should not go up to  
 the joining there are two stops which will  
 allow it to go half way between the points  
 & joints & by opening the handles you  
 make an opening about three inches in  
 length

length & then turning the Scissors the other way & opening them you make in this way an opening in head of three Inches Diameter. Therefore the Scissors answers all the purposes intended & is the best Instrument of any. Dr. Bell of Dublin has made a pair of Scissors but there is little difference between them & any will Answer this purpose. When you are to use the Scissors you use the same precautions as when you introduce the forceps, you first enquire into the state of the Bladder, if the woman has not made water for some time you introduce the Catheter & draw off the water. Then you introduce your hand to the head of the Child & carry the Scissors along it to the Child's head & apply it as far back as convenient for yourself for by piercing the Child's head too near the Os Pubis of the Woman you may happen to hurt the Uterus, when you have fixed on the place - you work with points of the Scissors on the Child's head in the same way as they do with the Trephine & when you have pierced it you separate the handles by <sup>which</sup>



which you will make a long Incision & then you  
 turn the scissors cross ways & by opening  
 the handles you make a Crucial Incision -  
 but altho this makes a large enough opening yet  
 the Morains have yet a firm consistence &  
 will not thereby run out, so to break the  
 vessels & lessen the Cohesion when you have  
 made the Incisions you will put the scissors as  
 far in the Cranium as they will go & stir the  
 Morains about for some time with them & then  
 they will come out; when this is done a great  
 quantity of Blood will come away which may  
 make you afraid of having hurt the woman  
 but you must consider you have tore the  
 Internal Carotid & Vertebral arteries of the  
 Child which will pour forth a good quanti-  
 ty of blood. When this is done you withdraw  
 them as cautiously as you introduced them  
 by carrying them out along your hand for  
 fear the Skins should take hold of the ragi-  
 na & lacerate it. When this is done you in-  
 troduce your hand to the head of the Child to  
 know whether or not there are any loose  
 bones for if you pull away the Child & some  
 of the Bones being loose & ragged you may  
 Injure

Injure the woman by tearing the Uterus or Vagina by them, so before going further you'll pull away these with your hands. There is another reason for you introducing your hand that as there is frequently a Tumor on the Childs head especially in Laborious Cases if the Sissors happen to go into it. they may go up the length of the Sops in it & not perforate the Cranium, & you know when this is the Case by feeling & then you must again introduce the Sissors and perforate the Cranium.

The Sissors open the Childs head by which the Brains are evacuated & thereby the size of the head is diminished the next thing to be done is to Extract the head of the Child. There are many Instruments contrived for this purpose, the one that will answer best is one that you can introduce with safety & ease, one that can take a firm hold when it is introduced & one that can be easily introduced again & will take a firm hold when it slips. Norriceau has contrived one which he introduces into the Opening & was composed of two circular plates of about 1 $\frac{1}{2}$  Inch diameter the outer one entered edge ways into the

into the Opening but by pushing it up against the inner part of the Cranium which made the whole surface extended then he pulled it towards him till the skull prevented it from coming any further & then by a screw he fixed the other plate on the outside of the Cranium & then pulled to him, But as the bones here will be very loose here after the opening they will not give resistance enough nor bear the force requisite for pulling away the head & body & if once it slips it will never hold again. There have been many Instruments formed on this plan but still Morriceau's has the preference. Some have used the Straight Crotchet for this purpose but this does not answer for if you have made an Opening the Claw of the Crotchet is at the edge of the bone which will not be firm & will bear no force; but many do not enter it into the opening but to take hold of the head outwardly, but it is not convenient for this as the head is curved & the Crotchet being straight it does not follow it. La Motte used forceps something like those used in Extracting the Stone in Lithotomy, with which he took hold of the bone



Wones, but they are also improper as they have only a small hold.

The best way is now to try to extract the head with the forceps which may answer now altho it could not do it before as the size of the head is now much Diminished & the forceps will often answer & you have a much better hold with them than with any of the above mentioned Instruments but sometimes the head does not diminish so much by the opening made that you can fix the forceps & therefore this Instrument will not answer in this Case & we must have recourse to another method & now we must use the Crochet not the straight but the Crooked one <sup>as</sup> this last mentioned one agrees best with the convexity of the Childs & thereby takes up less room & likewise you pull out the Child by it in a more proper Direction. The manner of using it is this, you introduce your hand into the Pelvis laterally & run the Crochet up with its side upon your hand till you carry it to the Childs head, as in this way it takes up less room, then you fix it with your hand into the hard head of the Child by making it pierce the Wones, when done you withdraw your  
your

your hand & apply both hands to the handle of the Crotchets & pull from side to side & at the same time cause the woman use her force in pressing it down by keeping on her knees & by this means you may extract the head. Some recommend the using two Crotchets, one on each side by which you can use more force by you pulling one & an Assistant another; but the two Crotchets can be only used in the beginning a little after the membranes break as when they have been broke for some time & the waters run out the Uterus will be so much contracted that you cannot get them both & on this account they can be seldom used as the membranes are a long time broke before you use this Instrument & I never use any more than One & finds it answer very well. Never carry your Crotchet any higher than what you can by the point with your hand when introduced, for if you go higher than you can reach you may get the Claw in the Uterus as well as the Child & thereby Destroy the Mother. If you use a great deal of force & the Bones give way suddenly & the same force continued, you may

may hurt the Woman by the Sclaw fixings  
 in the Uterus or Vagina in the way coming  
 out, you know a little before the Bones is to give  
 way by them becoming loose so when this hap-  
 pens you can pull cautiously; sometimes you'll  
 find great difficulty in getting away the Bones  
 of the head & may fix the Crutch 8 or 10 times  
 before you get away the whole of it. & when  
 you get away the head it is sometimes difficult  
 to take away the Body, but if you should be  
 so lucky as to fix the Crutch so that you pull  
 the head without the Os Externum & the body  
 follow in it; you must withdraw the Crutch  
 as cautiously as you Introduced it & pull it  
 away with your hands. you may sometimes  
 work two hours without pulling away any of the  
 head & this is owing to you not getting good  
 holds & when you work so long & unsuccessful  
 by you may be ready to give over the Delivery  
 by thinking it impracticable, but after this you  
 may get a good hold & pull away the Child &  
 first when I began to practise I sometimes  
 thought the Delivery impracticable by work-  
 ing some hours without pulling away a  
 piece of the Childs head but yet by persisting  
 in



in it I delivered them at last; therefore never  
 quite the Woman while she is in life. It is  
 surprizing how much a woman will suffer  
 sometimes in the Crotchets & yet will re-  
 -cover as quickly as if she had had only a  
 Common Natural Labour. So whatever dif-  
 -ficulty you may find in Delivering by the  
 Crotchets or turning the Child yet persist in  
 it & you may do it at last; I have sometimes  
 pulled the head in pieces & then the body would  
 not come away. I have then introduced my  
<sup>hand</sup> to endeavour to get hold of an arm & deliver it  
 or turn it & deliver it by the feet, the difficulty  
 in getting away the body is owing to either the U-  
 -terus being so much contracted upon it, or the body  
 preternaturally increased, & if it is owing to the  
 Uterus being much contracted upon the body, by  
 introducing your hand into the Uterus you  
 will dilate it & then take hold of the Arm & use  
 force to pull it away & you may often succeed in  
 this way, but when the Child has been some time  
 Dead the arms are very tender & will come  
 away with the least force & I have often seen  
 them both give way & then you must fix the  
 Crotchets into the Grooves of the Child which will  
 bring it away. When the Uterus is contracted  
 much

much upon the body it is difficult to turn it & bring it away by the feet & you may sometimes hurt the Uterus by doing it, therefore it is better to pull it away by the Arms as Directed before. If the Cause is owing to a Drapery in the Abdomen or Thorax you will discover this when you put up your hand to the body by feeling the Thorax or Abdomen much enlarged, when you find the abdomen enlarged you can push your finger thro' it which you can easily do & when the water is evacuated you can pull away the body with great ease. I had an Instance of this not long ago & by this method I delivered the body with ease. In cases of either the Abdomen being much Distended or the Uterus much contracted by the Introduction of the hand to perforate the Abdomen or dilate the Uterus, you may by this means easily Deliver the body; but when there a Drapery of the Thorax which Distends it much & hinders the Delivery you cannot perforate it with the finger & therefore you can introduce a pair of Scissors & pierce it or use the Crochet. These difficulties in Delivering the body will sometimes happen when the Head is delivered with ease as when both the head of the Child & Pelvis of the Mother are in proper proportion one to another & the head

head come down in a proper position yet the Uterus may contract strongly on the Body or the Thorax or Abdomen of the Child may be preternaturally Distended & thereby hinder the delivery of the Body.

This method of opening the head and delivering with the Forceps will not answer in all the variety of Pelvices, it answers when the Deformity of the Pelvis is at the Perim but when the Pelvis is Deformed below as well as at the Perim this method will not answer & we must now have recourse to

### The Caesarian Operation

This operation is performed at two Different times either immediately after the Death of the Woman, or when the Mother is alive in order to save both the Mother & the Child. Sir F. Douglas shews the impropriety of performing this Operation when the woman is alive & shews the Danger by other wounds of the Abdomen as a large wound of the Belly & a lesion of the Intestines is always mortal. he says the same will happen by cutting the Uterus & by the great number of blood vessels which are cut in the Operation the Woman will be soon Destroyed by the Hemorrhage, but an



a Lesion of the Intestines is worse than that of the Uterus for there are always matter passing thro' the Intestines w<sup>h</sup> is not the case with the Uterus & by the sudden contraction of the Uterus the Incision will be soon contracted very small in a short time so as not to admit your finger & likewise by this sudden contraction the vessels of it are also contracted by which the Hemorrhage will be stopped. Therefore this Operation is not quite so Dangerous as he Imagined & we have many instances of this not being any more blood lost in this Operation than after a common Natural Labour. If you look into Authors you'll find many Cases where the Woman has been lost by this Operation not being performed & have Died undelivered, owing to their pelvises being much Deformed, I remember I had once a Case where if this Operation had been performed she might have a chance of Living, she had been all some time before I saw her & upon touching her I found something long & soft w<sup>h</sup> I took to be the Neck of the Child but upon introducing my hand I found it was the head of the Child & I found the Pelvis was exceeding

exceeding narrow & the head was so far up that  
 I could give no Assistance with the forceps. I  
 ordered her to be bled & to wait all night to see  
 if the Pains would bring down the Child any  
 further. The next day the pains had had no  
 effect on the Child as it was scarcely any further  
 advanced & I waited till night & the Child was  
 only a little more advanced. The woman was  
 now very weak & the pains almost gone so I  
 had recourse to the forceps & extracted the Child  
 but the woman died two Days afterwards &  
 upon Dissection the Uterus & Vagina were  
 found quite black. You may meet with Cases  
 sometimes that you cannot deliver by any  
 Instrument then you must have recourse to  
 this Operation Dangerous as it is, but you  
 must not be too forward in performing  
 it for if you can do it by any other means  
 it will be preferable to performing this Ope-  
 ration. I shall show the Cases where it is  
 necessary to perform this Operation. —  
 1 When the Pelvis is so narrow that you  
 cannot get the Child extracted.  
 2 What has been mentioned by some Authors  
 as a case proper for this Operation is Extra-  
 uterine Gestures. With regard to them you

you'll find many Cases where they have remained in the Body for 10, 20 & sometimes 30 years & at the end of which time the parts are very Distinct, in this case it is not necessary to perform the Operation to endanger the Woman's Life for the removing a small Inconvenience & you'll find Cases of the fetus making an opening for itself by its forming an Abscess & will then come out. Therefore tis unnecessary to perform the Operation on this case.

3 Where the Uterus has burst & the fetus gone into the Cavity of the Abdomen: this operation must be done immediately after the Rupture for the Woman will soon turn Weak & will die within two Days. It will therefore be necessary to give the Symptoms of the Child getting into the Cavity of the Abdomen. When the Child forces the head & the <sup>mouth of the</sup> Uterus thoroughly dilated & pains pretty frequent & strong & all of a sudden the pains to go off entirely & the head of the Child to disappear then we may be sure that there is a Rupture of the Uterus.

4 Some Authors say that it is necessary to perform this Operation when the Vagina is much contracted with Cicatrices by accident befallen them before or obstructed with Swellings  
or



or fleshy Tumors which hinder the Child from being Delivered. But you'll find many Instances of the Vagina being very much contracted but in the time of Delivery will dilate easy enough & you'll find instances of large Tumors in the Vagina which did not interrupt the Delivery & Monst. gives an Instance of a Woman in Labour who had a large fleshy Tumor in the Vagina it was so large that it would have interrupted the Delivery, he therefore cut it away & she was Delivered easily. Though if the Tumor is so very large you can cut it away which makes the performing this operation unnecessary here.

Altho the Uterus is ruptured it is not necessary to perform this operation unless the whole of the fetus is out of the Uterus, for if a part of the Child remains within the Uterus you can take hold of it & Deliver the Child by it. Therefore this operation is only necessary when the Pelvis is very narrow both at the Lower part & Perim or when the Uterus has burst & the Child is wholly into the Cavity of the Abdomen. When this Operation is necessary it is of the greatest consequence to do it soon before the Woman is much exhausted and

& therefore it is of the greatest consequence to determine early whether or not a Case requires the Operation. When you find all the Marks of a narrow pelvis as mentioned before, you then introduce your hand to the Pelvis & the space at the brim you can measure with your finger & thumb & find it about 2 Inches or  $2\frac{1}{2}$  Inches the largest Diameter of it, you have no Chaise in this case to destroy the Child to save the Mother, for the force & length of time that are requisite for extract<sup>ing</sup> the Child would kill the Mother entirely, indeed it is hardly possible to extract a Child thro a pelvis whose largest Diameter is only 2 or  $2\frac{1}{2}$  Inches. therefore we must try the Operation.

The only thing necessary previous to the Operation is to empty the Bowels in order not to Disturb the Patient for as long a time as possible after the Operation, & for this we give her a dose of Physic which will operate the most speedily & a Dose of Salts will do it as soon as any & we may promote its operation by giving an Injection. This being done you next put the woman in a proper position & the most proper position is to be half Lying & half sitting, & this may be done in her own Bed, some order them

the patient to be fixed on a Table in the posture above mentioned, but the third answers as well & is more Convenient for the Patient. Next you chuse the side you are to operate upon & generally it is the left side as they are afraid to operate on the right for the Liver, but there is little danger of wounding it & if you find the one side more Distended than the other take it altho it be the right side, but if the Belly is equally Distended you may take the left side. some chuse the middle as in this way they do not cut the Muscles, but this is not of any consequence for it is not the cutting of the muscles that endangers the Life of the patient & they soon heal up now the side is determined to be the place for operating on, we then mark the place exactly with a pen & Ink that part we are to make the Incision, we make the Incision between the Os Illium & Navel, beginning a little below the Navel so as make it six or seven Inches in length without going too far Down, you make the Incision with a common Scalpell you cut the common teguments slowly first the skin, then the fat & the muscles & then you come to the Peritoneum, but before you cut it, it will not be amiss to tie any vessels which



which pour out any quantity of blood. & if the  
 Peritoneum is cut & the vessels not tied the blood  
 may flow into the cavity of the Abdomen; after  
 tying the vessels you cut the Peritoneum & make  
 as large an opening in it as you think neces-  
 sary. Then you cut the Uterus but you must do  
 it a reverse way from the Common Ligaments  
 you must cut it quickly. at this time you must  
 have an Assistant who introduces his hand  
 to the Uterus & supports it to hinder it from  
 falling down & the inconvenience of this is  
 if the Uterus should fall below the upper part  
 of the Incision the Intestines would come out  
 at it & this would be very troublesome to re-  
 duce them. therefore we must endeavour to  
 keep the Uterus close to the Incision & not to  
 allow the Uterus to fall down. then you make  
 a small opening into the Uterus & in which  
 you introduce your two fingers of the left  
 hand & run your knife along them & cut up  
 as much as you think necessary then take  
 hold of the Child & the Placenta which will  
 easily come away. next you wipe away all  
 the Coagulated blood from the Uterus; you'll  
 perceive that the Uterus will contract very  
 fast so you can take hold of the lips of the wound

of the wound made in the Uterus & keep them together for some time which will make the Uterus contract in such a way that the lips will be close together, then you dress the External wound which is by Using the Quilled Suture making three or four Stitches & leaving a small hole in the upper part of the Incision to allow matter to be evacuated in case it should be formed.

You'll find great Difficulties in performing this Operation. I have performed it twice

The first woman had a violent vomiting for three months before she came to the full time & when I had cut into the Uterus I could not pull out the Child as its head was jammed into the womans Pelvis, an Assistant introduced his hand into the vagina & pushed the head upwards & we had enough of Difficulty to get it out; the Child died two Days after of convulsions owing to the Compression; & the vomiting continued with the Woman after the Operation which forced open the wound several times & she died about two days after the Operation was performed.

The other one had a Cough for three months before the full time & in her after I had opened the Uterus I could not find the Child as  
the

the placenta adhered to that part of the Uterus which I had opened & therefore I was obliged to cut thro' the Placenta & got the Child out. - the Cough continued violent after the operation & produced the same effects on her that the vomiting did on the former & she died in two days afterwards. The Child is alive to this Day. Both these Women did not lose more blood than what happens in a common Natural Labour.

The memoirs of the Academy of Surgery mention that this operation was first performed in the year 1300 by a Man upon his own wife. his occupation was to Castrate Animals, his wife was in hard Labour & could not be delivered, he went & got an order from the Magistrates that he might perform the operation which he accordingly did & both the Mother & Child survived. You'll find in Authors several Cases of the woman surviving the operation & even Cases where it had been performed on the same Woman five or six times & survived them all; but it is generally fatal, it was performed once at London & once at Paris within these few years & they both Died; this is an operation  
that



that is attended with great Risk & little success so that very few recover it & therefore when the Pelvis is large enough to allow the Child to be extracted in any way this operation should never be attempted, & it is our last resource. Several Authors have not thought <sup>so</sup> as they have performed it when there was not the least occasion for it. in particular Monfr who performed it twice one in the year 1746 & the other in 1749, the first was a laborious case where the Child might have been delivered with the forceps or at most the brachet, but as soon as he was called after hearing that she had been some time in Labour he proposed the Operation immediately & performed it & the woman's Pelvis was of a tolerable good size. the one in the 1749 was a preternatural Labour, the breach of the Child presented & without so much as attempting to turn the Child & deliver it by the feet which he might have done with ease he performed the Operation; both the Children Died but lucky for him both the women recovered & bore Children afterwards in the common way which shoud that there was no occasion for the Operation.

### 3 III Præternatural Births

There when the Child presents the feet or any other part of the Body (the head excepted) to hinder the Delivery by the feet. Some may be delivered by the Labor pains alone, in others it is impossible that the Labor pains <sup>can</sup> force down the Child unless assistance is given: If one or both feet present the labour pains will deliver the Child, but what is double the Labour pains can have no effect & the further it deviates from the foetal position the more difficult it is. Thus when the Child presents its <sup>body</sup> back to the mouth of the womb & the feet up towards the bottom it is impossible that the Labour pains can force down the Child & here you must turn the Child & bring it away by the feet. When the Child presents its hands the Child is then lying straight out with its hands at the mouth & feet at the bottom of the Uterus & this is quite the reverse of the Easiest of the præternatural Labours you turn the Child & bring it by the feet but this is difficult here for the Uterus always contracts according to the form of the Child which in this case is in an oblong form by which there is less room for turning, & this is

is more difficult according as the Membranes have  
 been broke a long time before & especially if the  
 woman has had Labour pains for this will make  
 the Uterus contract close upon the Child. &c  
 We may discern a preternatural Labour before  
 the Child is so far advanced as to feel it; when the  
 pains are not strong & the woman long in labour  
 We may conclude that it is a preternatural  
 Labour for the pressure of an extremity against  
 the mouth of the womb will not Delate it so  
 much nor cause so great pains for these  
 circumstances depend on the bulk & weight  
 of the part on the mouth of the Womb, but  
 we are more certain when the Child is further  
 advanced. Some say that in a Preternatural  
 Labour the membranes come down in  
 a long form & in a Natural Labour in a  
 Round form but this depends on the mouth  
 of the Womb being more or less Delated, for  
 if it is not much Delated in a natural Labour  
 the membranes will appear long. In a  
 preternatural case the mouth of the Womb  
 will not have the same weight & bulk as  
 in a Natural case & by this you may  
 know some weeks before the woman is come  
 to her time whether it will be a preternatural  
 Labour or not. But if somewhat advanced in  
 & so these are the 3 Cases of Preternatural Labours when the  
 the Child presents the feet & Body or hands & so the Feet.



the Labour you will know with certainty for you may feel the Toes & heel of the Child distinctly thro' the Membranes. When the feet present you allow the Labour pains to force it down, but there is a Danger that the head should stick after the body is born & therefore you should put the Woman in a proper posture in case your Assistance should be requisite for you Delivering the head; in common Labours the woman lies on her side as I have said before but when this is the case she must lie across the Bed with her Breach equal with the fore side of it. Astruc thought the footling bruis more favourable than the Natural way, but this is not the case & Hippocrates thought them to be perilous because he seldom saw any Children delivered by the feet but what died in the Labour; but then they are not so pernicious as Hippocrates imagined. In all footling cases you should allow time for the Body to advance slowly so that the mouth of the Uterus & passage may be thoroughly Dilated so as to extract the head with greater ease. Sometimes when you have got out all to the Shoulders & then sticks & the Body cannot be born on account of both the Arms lying upwards along the head, here you cannot deliver the head if the Child is come to the full time unless.

unless the Child is very small & therefore you  
 must endeavour to pull down the Arms & the  
 Child will come down easily. the way you do  
 this is you take hold of the Body & push it to one  
 side & on the Opposite side you introduce your  
 finger & carry it to the Shoulder & to the Arm then  
 you <sup>take hold of it</sup> bring it down over the Chin, in this way  
 you take up much less room & you can do it  
 by no other means. When you are taken out  
 the Body you are placed upon a pillow below  
 the Woman. but when you are taking away  
 the head you must be above the Woman  
 in order to make the Child's head be the last  
 that comes out as by this way the Head will  
 be in its smallest form. you must raise the  
 Body upwards two or three times. by which  
 the forehead will fall down & the fore & houn-  
 der head will not come down at the same time &  
 the head by this means will be easily deli-  
 vered. You'll often find foolish Cases where  
 the pains are trifling & not able to force down  
 the Child in this Case you must give assist-  
 -ance, the assistance you give is you take  
 hold of both Legs & pull from side to side in  
 the time of a pain till you get it without  
 the Os Externum & when this far you take

a Warm Cloth & wrap it round the Child as it will be slippery & if the Head stick in the pelvis you do in the same way as directed before.

When the Breach of the Child presents you introduce your hand & pull down the Legs & then you pull from side to side & when you have brought it out to the Shoulders which will stick on account of the Arms lying up along the head then you bring down the Arms as before but sometimes you cannot reach to the Top of the Shoulder to bring down the Arms, here you must wait till the Child comes further down by either you pulling it or the pains of the Mother bring it down a little further then you pull down the Arms & Deliver the Child as Directed above.

Sometimes the Child only presents one foot now whether shall we deliver by the one foot or bring down the other? We can deliver by one foot as well as by them both & it would therefore be trifling to introduce your hand & pull out the other one, for when you have brought out the Breach of the Child you can easily bring down the other. so when one foot presents you'll wait a little to try if the Labour pains will bring the Child down  
of



if they are unsufficient for this you must take hold of the foot of the Child & pull it from side to side as before & when you have got out the Breach of the Child the other foot will come down & then you Deliver the Child as Directed before.

Sometimes the Child is in such a position as the Belly of the Child is to the Belly of the Mother & the two feet present & the hands are at the bottom of the Womb. So far it is the same with the former that you wait some time to try if the Labour pains will bring it down if not you introduce your hand, take hold of the feet & pull it down as before mentioned; but when the Breach is born & the Child is in the passage you must reduce it to the first Case by turning the Child & it can be easily done when the Belly is in the passage as it is very flexible; if you did not turn the Child you would meet with very great Difficulties for it would be impossible for you to bring down the Arms & also the face & hand head must come down at the same time which takes up more room than when the head comes last. —  
When the breach is born & the Belly on the

the passage you take hold of the <sup>or give</sup> Breech, & a half  
 Turn & a quarter turn & then bring back the quar-  
 ter turn again. the reason of this is, the half turn  
 brings the body into the first base w<sup>th</sup> the back  
 of the Child to the belly of the Mother, but the head  
 does <sup>not</sup> always follow the body exactly therefore  
 by giving the quarter turn more it will bring  
 the head in the proper position & if it had been  
 in the proper position before the quarter turn  
 was made it will make no alteration so  
 you see this quarter turn is absolutely neces-  
 sary & you then bring back the quarter turn  
 again which puts the Child in a proper position.  
 & <sup>or gives</sup> the woman ~~has~~ no pains to turn the Child  
 in this way & the Child is not in the least hurt  
 by it, now you take hold of the Child & pull  
 it out as before & there is no difference in the  
 base from the former unless in pulling  
 down the Arms in this case you must in-  
 troduce your hand into the opposite side  
 to where you turned the Child & you'll get  
 that arm with the greatest ease & bring it  
 down & then the other one you'll bring ea-  
 sily down by the first one being down.  
 The reason of doing this is that by the turning  
 of the Child one of the arms is below the  
 Child & the other is at a little distance from it  
 & you

You have the same variety when the Belly of the Child is to the Belly of the Mother as when the Back of the Child is to the Back of the Mother. When the Child in this position presents one foot, you deliver as before but before you can get the other leg out the Child may be so far advanced that you cannot turn it as the Child is turned easiest when the whole belly of the Child is in the passage so in this case you must push up the Body of the Child & give it the half & quarter turn as before. When the Breech presents in this position you bring down the feet & Deliver as before.

In these footling cases you have had no Difficulty in Delivering the head, but it may happen sometimes that the head may stick in the Pelvis & may be difficult to come away & it is more apt to be the case in footling cases than in those cases where the Child comes down in the Natural position as in the Natural position there is time allowed for the bones of the Childs head to model itself to the Pelvis which is not the case in footling cases.



Cases. There may be a Difficulty of deliver-  
ing the head from

1<sup>st</sup> The wrong position of the Childs head  
at the Verrum or bottom of the Pelvis even  
tho the Pelvis be large enough for the  
Childs head when in a right position

2<sup>d</sup> The violent Contraction of the Uterus  
upon the neck of the Child.

3<sup>d</sup> When the head of the Child is too large or  
the Pelvis too narrow

1<sup>st</sup> The wrong position of the Childs head  
At the Verrum of the Pelvis. When the  
hind head is to the Os Pubis & the fore head to  
the Os Sacrum, in this case the longest part  
of the head is to the shortest diameter of the  
Pelvis, which will occasion a Difficulty  
in bringing it down; the method you use  
is you take hold of the neck of the Child &  
raise up its body towards the belly of the  
mother which will bring down the fore  
head of the Child which makes the head come  
down in a smaller form, it may happen that  
the doing this once will not do we must  
make frequent movements in this way even  
that motion is sometimes not sufficient for  
you'll be often obliged to introduce your finger  
\* We cannot turn the Child in this case by giving time the bones will yield.

into the passage & put it into the mouth of the Child & pull its mouth downwards to its breast & the most convenient way for holding the Child is to hold with your right hand & put your left hand on its breast & when it is necessary to introduce your finger you put up the finger of your left hand; by this means you often get away the head of the Child.

2 The wrong position of the Child at the bottom of the Pelvis where the hind head is to the one Os Pubis & the face to the other. In this case we must turn the Child which is sometimes very Difficult to do for often you have been pulling strongly before you introduce your finger to know whether or not the head is in a proper posture & thereby it will be firmly fixed therefore you first push up the Child & then make a turn so as to make the face be in the hollow of the Os Sacrum & you always know by the mouth of the Child when it is well turned for when you introduce your finger in the under part towards the Os Sacrum you will feel the mouth of the Child & when the Child is in the right position you may use a good deal of force & if you be

be fatigue'd you may get an Assistant to pull along with you & it is surprising how much pulling the Child will suffer without being hurt. Often altho both the Accoucheur & Assistant pull for some time with all their force yet the Child will receive no hurt.

3 Another wrong position is when the head comes down with the face to the Os Pubis and the hind head to the Os Sacrum the face may stick with the face upon the Os Pubis & not as Morriceau thought which was that the Chin was above the upper edge of the Os Pubis & thereby could not come down, but the way is there is a jelling of the Os Sacrum by which the hind head is forced forwards & throws the face upon the Os Pubis & as the fore head & hind head come down at the same time which requires a larger opening than when the one goes before the other & thereby the head will stick fast. Another Difficulty here is that as the Arms are up along the head by which it will require a larger opening to allow it to come down & you really cannot deliver the head unless you first bring down the Arms & in this position it is impossible to bring down the Arms therefore it is requisite that you should



should turn the Child & first you must push  
 up the Child & then give the half turn & then  
 quarter turn & bring it back the quarter  
 turn again & then bring down the Arms &  
 Deliver the Child in the same way as before.

2<sup>d</sup> The Uterus too strongly contracted about the  
 head of the Child. This should be distinguish-  
 ed from the others as it requires a different  
 Treatment. you may be almost certain that  
 this is the Cause when the Woman has had  
 Children before & had always easy Labours  
 this shows that it is not owing to a Deform-  
 ity of her Pelvis; when the Child is less than or  
 -dinary & this Cause often happens in deli-  
 -veries at the Seventh month; When the womb  
 is very suddenly Dilated, it will as suddenly  
 contract; If you pull the Child with force in  
 this Case you may separate the Body from  
 the head and especially if the Child at the se-  
 -venth month as it is then very Tender & the  
 way you do here is you introduce your hand  
 into the Uterus under the face of the Child &  
 dilate the womb thoroughly & then pull  
 away the Child gently. I had one Instance  
 of this. The Accoucheur pulled the Child with  
 great

great force by which the body was separating from the head I was then called for I introduced my hand into the Uterus & directed it & as it was impossible to bring away the head by the body as they were almost separated from one another, I introduced the Brachet & brought it away; but if the person at first had introduced his hand & directed the womb the child might have been delivered with ease & alive.

3<sup>d</sup> When the head of the child is too bulky, or the Pelvis too narrow. you have more difficulty in getting away the head when it comes last than first for when it comes first the bones of the head has time to model itself to the Pelvis. — I shall suppose the head at the Bottom of the Pelvis & you have Examined the position of the head which you find to be right enough & have used all the former methods & you continue pulling till the neck of the child is giving way, then we must have recourse to another method for by pulling the body it may separate & the head will be left in the Uterus. Many Instruments have been invented for this purpose of pulling away the head when the neck is beginning to

to separate but they are all ill to manage & they  
 bring down the fore & hind head together which  
 makes a larger opening requisite & the Instru-  
 -ment that answers the best of any is the long  
 Forceps which answers the very well so when  
 the Child's neck is tender so that you cannot use  
 force upon it to bring away the head you'll in-  
 -troduce the forceps in the same way as described  
 before & here make the joining of the forceps be  
 towards the Chin of the Child & the extremities of  
 the blades at the hind head & by this means  
 you make the hind head the last in coming away  
 This method may answer when there is only a  
 small disproportion between the head of the Fetus  
 & cavity of the Pelvis, but if the Pelvis is very  
 narrow or the Child's head very large this me-  
 -thod will fail & we must have recourse to other  
 Instruments & here we must make an open-  
 -ing with the Scissors in the hind head to dimi-  
 -nish the size of the head & then introduce the  
 Crotchet & pull it away. When the forceps  
 fail & the Disproportion between the Child's  
 head & the Mothers pelvis <sup>is great</sup> you'll introduce the  
 Crotchet in the way I have before mentioned  
 & put it into the fontanelle of the Child &  
 when you pull the Crotchet will slip till



it comes to the Cerebriform Bone. by which a large opening is made w<sup>th</sup> will allow the Brain to be evacuated & thereby Diminish the size of the Child's head & you have now a firm hold by which you pull out the head & besides you <sup>have</sup> a hold of the head at a point of resistance by which you can pull it out the easier, for the head sticks with the face fixed to the Os Pubis & the hind head to the gutting of the Os Sacrum & if you pull between these resistences it will require greater force than when you pull at the place where one of the Resistences is made.

But in general when there is no great disproportion between the Head of the Child & the Pelvis of the Mother by the moving of the body so as to bring down the head, & the Child will be delivered & when there is no great Disproportion you may freely use force & be as expeditious as possible for the smallest Delay will often Destroy the Child & if it is difficult to do it expeditiously in this way you may use the Forceps. —

Sometimes either from Mismanagement or the great Disproportion between the head of the Child & pelvis of the Mother the head is left in the Uterus & this reckoned the most difficult operation of any in Midwifery

by some, as it is difficult to get hold of it. if you look into La Motte, you'll find two cases of the head being left from Mismanagement where there was very troublesome to extract it & the reason is that there are no certain rules for Delivering the head & you'll find some times when the Accoucheur has given over hope of Delivering the head & have left the woman & when he called next day he would hear that that the head was Delivered owing to the Uterus contracting & forcing it against the mouth of the Uterus, dilating it & producing pains which will force it down & it is certain that Nature will do it when it is owing to Mismanagement, there are Cases of the head remaining in the Uterus Twenty one Days & was Delivered without any Manual Assistance When this arises from Mismanagement it is a true Forceps Case for here there is no Disproportion between the head of the Child & Pelvis of the Mother, the head is far advanced & the mouth of the womb Dilated, here you introduce your hand & turn it to its natural position with to make the hind head present, then you cause an Assistant to press their hand on <sup>the</sup> ~~and~~ and it remains there merely for want of pains -

the belly of the Woman in order to make the head form in the Uterus then you introduce the <sup>long</sup> forceps as Directed before & pull out the head.\*

When this arises from a Disproportion between the head of the Child & Pelvis of the Mother, it is a Crutch Case & you can never extract it unless you diminish the size of the head by opening it & then fix your Crutch & pull it away. Various Instruments have been contrived for this purpose Some have used a Nit Cap which they introduce & put over the head & by drawing strings as they do in purses they include the head within it & then pull it out but this does not Diminish the Size of the head & will answer no better than a pair of forceps & even not so well for it is very Difficult to put the Cap over the head. Mr Levette & Dr Well have invented Instruments but none of them are so good as the Common forceps. - The method you use here is, you turn the head into the Natural position as when you use the forceps & cause an Assistant press with his hands upon the Woman's belly to make the head -

\* But previous to the use of the long forceps you may put your finger into the mouth of the Child & try to pull it away by it & if the jaw bone is like to give way use the <sup>long</sup> forceps.



head firm into the Uterus & then you introduce the  
 Scissors & make an opening, & enlarge so as to  
 allow the Woman to be evacuated then you may in-  
 troduce your finger into the Opening by which  
 you may pull it away & if it fails you may try  
 the forceps which may answer now altho they  
 could not do it before as the head is now much  
 Diminished, if this fails also you can Introduce  
 the Crochet & fix it about the Orbita where you  
 will have a good hold by which you may  
 pull away the Head with ease.

It is owing to the not taking it in this way  
 that there have been so many Instruments  
 contrived for this purpose & have increased  
 greatly the number of Books on Midwifery  
 & none of the Instruments contrived answer  
 so well as those I have mentioned & if they  
 had had the same answers that I have, they  
 would have found it a very easy matter to  
 extract the head.

In every Case where the head is left in the  
 Uterus by Mismanagement, you may ex-  
 tract it by either putting a finger in  
 its mouth, by using the long forceps or  
 by turning the head to its Natural position  
 & extracting it with the common Forceps.

When

Where the head is left in the uterus owing to a Disproportion between the head of the Child & Pelvis of the Mother, by diminishing the size of the head by making an opening so as to allow the Brain to be evacuated & introducing into the opening your finger, you may pull it away or turn the head you may extract it with the common forceps, or introduce the Brochet & fix it in one of the Orbits & you are sure of extracting it. So by some one of these methods you can easily extract the head when it is left in the Uterus. So far from one thinking that when the head is left in the Uterus to be difficult to extract that I sometimes when the Child is Dead purposely separate the Body from the head in order to get it away the easier for when the body is separated it is more easily managed & you can turn it to the natural position & get it away the easier which it is impossible to do when the Body is joined to the head & therefore instead of this being a Difficult Operation as some have imagined it is easier than a number of them.

2 When the Child presents double &

1<sup>st</sup> When the Breech presents. Every Child whose head is at the bottom of the womb & presents either one or both feet or comes double & presents the Breech & may present in this way in two different positions either the back of the Child to the Belly of the Mother or Belly of the Child to the Belly of the Mother, but the most favourable position is the back of the Child to the Belly of the Mother. The way you know when the Child presents Double is when you feel a bulky part presenting & that it comes slowly down & when the membranes are broke you know it by the softness of the parts & you may feel the parts of Generation & you'll perceive the Meconium upon the cloths, but the Meconium is not a certain mark for sometimes altho the Breech presents there is no appearance of the Meconium & there are some cases of the Meconium appearing when the head presents in a natural way, but this is very seldom. There is no great matter altho you should make a mistake in taking the Breech for the head for



for altho you know from the beginning that the Breech presents yet there is noillation made from the Common method; but it is better to know as the woman may be enquiring if the Child presents right & if you say it does & the Breech to be presenting when she knows that the feet came first she is sure that it did not present right & may therefore entertain a bad opinion of your knowledge in Midwifery; so in any Ambiguous Case you can tell that the Child is not so far down that you can tell with certainty whether it presents right or not. There are two ways of Delivering here

- 1 To allow the Labour pains to force down the Child as in a Natural Birth.
- 2 To push up the Child & bring it down by the feet. I shall examine which is most frequently done. If you look into Authors you'll find that the greatest number are allowed to come down as they present. Dr Smellie has 87 Breech Cases 10 of which were allowed to come down by the labour pains & 7 were delivered by the feet. Morriceau mentions 26 of which the half were allowed to come away by the pains & the other half was delivered by the feet. Mr Gifford had 12 --  
Breech

breech Cases of which 8 were Delivered by the  
 Labour pains & 4 by the feet. & of all the varieties  
 we may at least reckon that one half are allowed  
 to come down by the Labour pains.  
 In what cases is the one to be preferred to the  
 other, or which is the best method?  
 You cannot determine which is best method  
 till the Labour is far advanced. If the Woman  
 has been some time in Labour, the mouth of  
 the Womb sufficiently Dilated & the membranes  
 have broke about two hours before & the Child  
 not advancing then you may conclude that  
 the Child is too bulky to come down Double &  
 the best way is to push up the Child & bring  
 it away by the feet, or if a little after the mem-  
 branes have broke the pains are very strong  
 & frequent & yet the Child not advancing then  
 you must bring it away by the feet. There  
 is one Drawback in a woman's first Child  
 for they have commonly a more tedious  
 labour then, than afterwards & altho the  
 Child presents the Breech if time is allowed  
 it may come away in that manner, but I  
 believe it may be as well when it is very  
 tedious to bring it away by the feet. but  
 if a woman has had several Children &

had always easy Labours, the Child will come away Double pretty easily, or if the Child is small or there are Twins who are smaller than any other Children, you may allow them to come Double. I shall now mention each of these methods more particularly & 1 When the Child is allowed to be forced down by the Labour pains. @ You must look on this as a common Natural Labour & you can give no assistance till the Breech is born & then it is so far advanced that it requires none, you must be cautious how you take hold of the Breech as you may hurt the Child & you are in more Danger of that when the Breach than when the head presents as the parts of Generation are very easily hurt: when the Breech is born you pull down the Legs & then you have reduced it to a fooling Case & one of the best of that kind viz the back of the Child to the belly of the Mother, here you wait to see if the Labour pains will Deliver the Child, but if there are no Labour pains, you put a warm cloth around the Child & then pull it.

@ a first when the Breech presents with the back of the Child to the belly of the Mother.



it from side to side & when you bring it to the  
 shoulders you pull down the Arms & then  
 bring away the Head, you will have no dif-  
 ficulty in pulling away the Head when the  
 Breech comes down first, for here the Child  
 is like a cone with the largest end coming  
 down first, as the Breech & legs will take  
 up rather more room than the head & there-  
 fore the head will easily come away, but  
 when the Child comes down with its feet first  
 it is like a cone with the smallest end com-  
 ing away first & thereby there will some-  
 times great difficulty in getting away the head.  
 2. When the Breech presents with the Belly  
 of the Child to the Belly of the Mother. In this  
 Case you wait till the Labour pains deliver  
 the Breech & then you bring down the Legs  
 but by this time there is too much of the  
 body delivered you therefore push it up  
 & give it the half turn & quarter turn &  
 bring it back the quarter turn again &  
 when you come to the shoulders you  
 bring down the Arms as in the footling  
 Case which it is reduced to w<sup>th</sup> see P. 291  
 Dr Smellie recommends the use of the great  
 hook in Breech Cases, you introduced it  
 and

and take hold of the Groin of the Child & pull it away, but then you cannot introduce it without breaking the Neck of the Child & therefore it ought to be laid aside, for if the pains cannot force down the Child Double you can push up the Child & bring it down by the feet & you'll never meet with a Case but what you can do this.

2<sup>d</sup> To push up the Child & deliver it by the feet. This will be fully shewn in treating of the turning of Children in other preternatural Cases. I come now to the

2<sup>d</sup> Class of Preternatural Labours viz When the Child lies across the Uterus and presents the back the belly the Shoulders &c. Authors have made this more complex than what it might for they thought that there must be particular rules for every way that the Child presents, but there are some general Rules by which the whole of the Positions can be delivered. This Class of the Preternatural Labours is more difficult than the former as all these positions must be reduced into the Lying Cases; also in the former Class if the Woman has strong pains the Child will be forced

forced down but in this Clasp the stronger the press  
 are it is so much the worse for they force the  
 Child more & more into a worse position; this  
 Clasp is more difficult than the former for in-  
 stead of the feet being at the mouth of the womb  
 they are at the bottom of it & often there is a  
 Difficulty of getting hold of the feet so as to turn  
 the Child. The Ancients knew nothing of turn-  
 -ning the Child & bring it away by the feet but  
 they changed it so as to make the Head present  
 & Hippocrates in order to turn the Child made  
 the woman lie on a Sadder & so to turn her-  
 -self Topsy Turvey upon it; but there are  
 Disadvantages in making the head to present  
 for it is more difficult to turn the Child so  
 as to make the Head to present than the feet  
 & when the head is made to present if the  
 pains are trifling, the Child cannot be de-  
 -livered therefore it is far better to make  
 the feet to present. It was a very long time  
 before they fell upon any other method than  
 to make the head present, & altho Celsus  
 was looked upon by some to have known  
 a great deal of Midwifery & that he knew  
 about



about the turning of Children & Delivering them by the feet, but all that he knew was that the Child when it presented the feet may be Delivered in that way. . . . who wrote, on Ruptures was the first who recommended the turning of Children & delivering them by the feet when they presented wrong, but few followed him & was neglected at last. Ambrose Paré made a great Improvement on Midwifery by renewing it & he always used it but after his time this practice was far from being general for his Successor exclaimed against it & recommended the Old method. and Horriceau was the first who made it general & ever since his time it has been used. In treating now of the Præternatural Positions of the second & third Clapses all that remains is to show you the Method of Turning for the Delivering by the feet has been already shown. I shall now give

### Rules for Turning the Child

The first thing to be regarded here is the placing the Woman & yourself in a proper position. The best positions for the woman to be in are either to lie on her side at the edge of the bed

Bed; across the Bed lying on her back with her  
 Kneech equall with the Edge of the Bed, or her sit-  
 ting upon her knees; The lying on the Side &  
 sitting upon the knees are the best, for if she is  
 lying on her back you may often not reach  
 far enough up in the Womb as in this position  
 - on the bottom of the Womb is far up; if on  
 her side unless she is close to the edge of the  
 Bed, it is very inconvenient & you cannot  
 reach far enough up, but of all the Positions  
 the sitting on her knees is the best, for here  
 the womb falls lower; if you have not far  
 to reach to get to her womb she may be put  
 on her back. The best position for you  
 is to be below the woman for in this way  
 you will reach further up, you should  
 therefore put a pillow on the floor & sit with  
 your knees upon it. When the Woman &  
 yourself are in proper positions, you then  
 introduce your hand up to the womb & get  
 it below the body of the Child, sometimes la-  
 terally, but it is commonly best to put it  
 below the body of the Child & go higher & high-  
 er untill you feel a foot, if you get one  
 foot it will do & you need not be very

assiduous

& tedious to get hold of both feet as one will do as well  
 & if the Womb is not much contracted the Child will  
 turn round by pulling the foot & then you have re-  
 duced it to a footling Case & Deliver accordingly.  
 Sometimes after you get hold of the foot the Child  
 will not turn round by pulling it owing to the  
 head getting as far down as the Perim of the Pelvis  
 & the Womb contracting; so when you pull the  
 foot you make no Alteration on the head & you  
 cannot turn the Child, the way you do it is you  
 push up the head of the Child with the hand  
 that is introduced & then take hold of the foot &  
 it will then turn round. Sometimes when the  
 Child presents both feet & the head low down in  
 the Pelvis & the womb contracted, by you pulling  
 the feet you bring both the Wreath & Head into  
 the passage at the same time & the Child cannot  
 be Delivered in this way so you must first push  
 up the head & then pull down the feet. Sometimes  
 when the feet are up & the head down in the Pelvis  
 & the womb much contracted when you push up  
 the head, you push up the whole Body & when you  
 take your hand from it, the Child comes down  
 in the very same position as it was before,  
 in this Case it will be necessary to have two  
 powers to act at the same time, one to pull  
 down the feet & the other to push up the head  
 so it would require one hand to pull down the



the feet & the other to push up the head but as we cannot have both hands in the passage at the same time we must fall upon another method & we must here use the Hoose. the manner in which this is done is you Double a Ribbon & carry up the doubled part a little & take hold of the doubled part & then you'll make a noose, you'll put this noose over three fingers & a thumb you must keep your fingers & thumb as close together as possible & shape them like a cone the Extremities of your fingers being the smallest end for if your fingers are at a Distance from one another it will be impossible for you to introduce it into the Uterus, you put the noose over the first joint of your fingers for if it is higher up it will be difficult to put it over the foot when you come to it & you hold fast the extremities of the Ribbon with your other hand so as to keep the noose fast upon your fingers, for if this was not done, in the introducing of it the noose would slip up upon your fingers & you could not get it introduced; then you introduce the noose after the manner mentioned & when you touch a foot of the Child with the point of your finger you take hold of it with a finger & thumb & slip the noose upon the foot & make it stay by pulling the Extremities of the Ribbon; as the

the Extrinsics of the Ribbon are without the Os Externum & the ribbon will take up no room in the passage you introduce one hand into the uterus & push up the head of the Child & at the same time that you do this pull down the foot by means of the Ribbon with the other hand & by this means you will turn the Child. There have been many Instruments contrived to take hold of the foot but none of them are so good as the noose for they are both more difficult to introduce so as to take hold of the foot & they will hurt the Child more. When you have brought the foot without the Os Externum you then take off the noose & you have now reduced it to a footing Base you pull from side to side by the foot & when you have got it out to the breach you can pull by the foot by one hand & introduce the fingers of your other hand to the Groin of the Child & pull out the Breech & when you come to the Shoulders you pull down the Arms & to Deliver the head you put one hand upon the vertex of the Child & hold the neck between your two fingers of your other hand & pull from above to below & thereby get out the head. I have all along supposed that you could easily get hold of the foot but sometimes it is

is very Difficult to get hold of the foot you may introduce your hand laterally & feel at the bottom of the Womb & its Sides & yet cannot feel a foot & at this time they are lying up towards the Navel of the woman & in order to reach them you must put the Woman upon her knees & direct your hand towards the Navel of the Woman: I had an Instance of this lately, one of the Gentlemen being called to a Woman he found the Child presented a Shoulder & he therefore sit about to turn the Child but he could not find a foot I was sent for & when I was told he could not find a foot I put the woman on her knees & I immediately got a foot & I turned the Child at once. You will find one hand answer better than another for if the feet are lying in the left side of the uterus the right hand is best & you cannot touch them with your left hand and vice versa & one position is better than another. therefore in every case where you find a Difficulty in getting hold of the foot try Different hands & Different positions Next to the foot is the Arm. When the Child is lying across it sometimes presents the



the hand or Arm & when the Arm presents in this way we are sure the foot is not far off but when it presents whether or not shall we reduce it? We need not care much whether we reduce it or not for an Arm takes up very little room in the passage & you can run your hand along the arm & it will often lead you to a foot which when you get hold of & pull the Child will go round & the Arm which presented will go out of the Passage. When the Arm presents it will often make us think that the Child is Dead by it being considerably swelled & yet the Child is alive this may happen from the Uterus contracting strongly on the Arm & stopping the Circulation, in this case you must first reduce the Arm & then take hold of the foot. Some when they see the Arm swelled think that the Child is Dead & pull away the Arm & thus destroy the Child, but never obtain a Child if possible altho' you are sure that it is Dead for it serves no purpose as the Delivery is not any easier on that account & I never met with a Case but one where the Delivery could be hastened by Dismembering the Child, the woman was long in Labour before

I saw her the Child was Dead & it presented the Arm which was very considerably swelled however I reduced the Arm turned the Child & brought it away by the feet, but I believe it could have been easier done, if I had pulled away the Arm.

Whether the Child presents the Arm Shoulder back or belly these General Rules will answer you endeavour to get hold of the foot & pull it, so as to make the Child come round if the head is down & it hinders the Child from turning round you first push up the head & then pull the foot & will thereby turn round, but when you push up the head if the whole Body goes up then you fasten the Noose to the foot & push up the head & pull down the foot at the same time which will make the Child turn round.

3<sup>d</sup> Class of Prematural Labours is when the Child presents one or both Arms & the feet are up at the Bottom of the womb & the head at the mouth & as the Child here is of an oblong shape the Uterus will contract in an oblong form which will make the Turning & Labour more difficult. What is the best method here whether we are to reduce the Arms & thereby put

put the Child in the Natural Position or turn the Child & Deliver it by the feet. If the woman has not been long in Labour the membranes lately broke & the pains strong reduce the Arms or if only one reduced it so as to make the Natural position, this is Difficult to do when the membranes have been long broke for then the Uterus is strongly contracted upon the Child & I have found it always answer unless in this Case, the first time I tried this on was a woman who had always large Children, when I came I found it presented both hands the membranes had been lately broke, I reduced the Arms & put it in the Natural position & the Labour pains soon Delivered the Child. In the second the Child presented one Arm, & the woman was in the same situation with the former I therefore reduced the Arm & the Child was also Delivered by the Labour pains. These two women had good labour pains which hastened the Delivery & it may be objected against when the pains are trifling, but I have done it when the pains were very trifling; in this Case it is much easier to reduce the Arms & so put the Child in the Natural position than to turn the Child  
 &



and bring it by the feet; but then it will not answer in every Case for if the membranes have been long broke & the waters entirely evacuated the Utterus will be contracted in a long form & altho the Arms are reduced the pains will not bring down the Child so in this Case we must Turn the Child; you introduce your hand below the Child as high as to get hold of a foot & pull it down & after you have brought it as low as you can get it you apply the noose upon the foot and push up the head of the Child & thereby you'll turn the Child. The only Observation I shall make here is that in turning the Child in this Case you'll often be very much fatigued & your strength much exhausted so that if you attempt to Deliver the Child immediately after it is turned - you will not have strength enough to do it & the Child may stick some time in the passage & thereby Die before you can get it out, so after you have turned the Child it is best to Rest yourself some time so as to recover your strength before you proceed to Deliver & the Child can take no harm by remaining that short

short time in the Uterus.

These different positions are rendered more difficult by it complicated with these several circumstances viz<sup>t</sup> the Navel String, presenting with the Child, the Navel String twisted about the Child, in a Hooding & when there are two or more Children.

1<sup>st</sup> The navel string, presenting with the Child.

When there is a great quantity of watery evacuations suddenly it rushes out with such force as to carry the Cord down & presents along with the Child, you know by the pulsation of the Cord whether the Child is alive or not for if no pulsation the Child is Dead; then the Cord may come down in any position of the Child & the more Natural the Child presents the more difficult it is, or when the head presents it is more Difficult than the Arm for the Head is more bulky & it fills completely the Cavity of the Pelvis so it will be difficult to put back & if not put back the will be in Danger of Dying by the Umbilical Cord being compressed.

If there is no pulsation in the Umbilical Cord you make no alteration in the manner of Delivery as the Child is Dead & the Cord is not bulky & bring it away in

in the Common way. If there is a pulsation you must be regulated by the Circumstances of the Woman, if the Woman has had Children before & had easy Deliveries you may allow the Child to come down in the common way but if she has had Difficult Labours before you must reduce it, if it is the woman's first Child as they are then commonly long in Labour you must likewise reduce it. you'll meet with many Instances of the Navel String coming down with the Head & the Child alive but then the Child is not long in the passage sometimes indeed this has been the case when the Child has remained hours in the passage & I had once an Instance of this. When you want to reduce the string you cannot do it unless you first push up the Child for the head will be so fast that you cannot get it up otherwise, after you have pushed up the head you put up the string behind the head of the Child & this cannot be done unless at first & if far advanced this cannot be done & you must allow the Child to come down in that way. The Navel string, sometimes comes with the



the Breech & this like the head is a Bulky body, so that the Cord is in Danger of being compressed & thereby of the Child being killed; In this case it is almost always proper to reduce the Cord & for this purpose you must introduce your hand into the Uterus, & it would be a pity when you reduce the Cord not to pull down a leg also, for in one half of the Breech cases you are obliged to bring the Child away by the feet & you do not know but this case may require it, so when you reduce the Cord you'll likewise bring down a foot; If any other part of the Child presents the same method is to be followed, for in these cases you are commonly obliged to turn the Child & bring it by the feet, so when you introduce your hand to bring it by the feet you can first reduce the Cord. If the Navel string presents along with the feet, you treat like any other common footing case as the string is in little danger of being compressed as the feet take up very little Room.

2. When the Navel string is Twisted about the Neck of the Child.

In proportion as it is more or less twisted there is more or less Danger & this is very often not known early & many times the head

head is Delivered before this is known to be the Case; Sometimes altho' it is Twisted about the neck the Child will come away in the Common way, but if it is three times twisted about its neck it will make the Cord so short that the Child cannot be Delivered. It is difficult to know this untill the Child is very far advanced, you may sometimes know before the head is Delivered, for if the Woman has now a Difficult Labour & used before to have Easy ones, if the Childs head is of a moderate size & there is no disproportion between it & the Pelvis of the Mother & if the Child advances in the time of a pain but when it goes off the Child retracts again & when the Head of the Child is at the Os Externum & you think that every pain will deliver her yet to be in Labour for five or six hours: if all these Circumstances occur you may be sure that the Navel string is twisted about the Neck of the Child! The reason why in this case the Child advances in the time of a pain & when it is over the Child retracts is, in the time of a pain the Womb is contracted & pushes down the Child & as the Womb descends the placenta which is attached to it must descend also which allows

allows the Child to advance, but when the pain is over the Womb returns to its natural place & by the placenta in this way, ascending the Child retracts.

Many Consequences have been ascribed to this by Authors, they say it occasions a more tedious Labour; this without doubt it does; they say it occasions a separation of the Placenta from the Uterus; but this it seldom or never does: they say it produces a Rupture of the Uterus by the pains forcing down the Child & it cannot advance, ~~by not~~ having a sufficient length of Cord, I have seen several Cases of Ruptured Wombs but never one owing this Cause & I imagine that it very seldom occasions it.

They say it causes a Rupture of the Umbilical Cord. this it may sometimes do but seldom & when it breaks it is near the Placenta: they say it may strangulate the Child, but this it seldom does for the pressure on the Childs neck is only great in the time of a pain by the Uterus forcing down the Child & the cord not yielding but when the pains are off the Child will retract & the cord will become slack, but by the compression made by the Cord on the Childs  
neck



Stick by preventing the blood from returning from the head the Child has become Apoplectic & may remain several minutes may a quarter of an hour motionless after <sup>it</sup> is delivered, in this case the sooner you cut the Umbilical Cord the better & as soon as possible you can empty somewhat the vessels of the Brain, so when you have cut the Umbilical cord you can allow a Spoonfull of blood to flow from the Child, which will do it great Service.

In what way are we to give assistance in this case? There are two methods used  
 1 To Turn the Child & bring it away by the feet. 2 To allow it to come away in the Natural way,

1 To turn the Child & bring it away by the feet. This is Difficult to do. It is one of the worst of the Preternatural Labours as the head is at the mouth & the feet at the bottom of the womb; besides as it is long before we can discover this to be the cause the head will be low down & the womb much contracted which will make the turning very Difficult therefore it is better not to use this Method; indeed some Women are liable to have their Children in a particular

particular posture or the Navel string, twisted about their necks, so if you are called early to a woman who has had three or four Children delivered with the Cords twisted about their necks, you may suspect the same to happen in this case so you may turn the Child & allow the pains to force it down.

2 To allow the Child to come away in the Natural way. Sir Aelsberg Aulstein in order to prevent the Child from retracting introduced his finger up the Vagina & pushed it on the forehead of the Child; but then it is not possible that you can push for any time so as to prevent the Child from retracting; he also advises another method to introduce a pair of Scissors to the Navel string & cut it; but this is difficult to do & more so than to introduce them to open the head of the Child & is attended with more Danger, but allowing there was no danger nor Difficulty attending it, you are not certain how long it may be before you Deliver the Woman & if it is any time the Child will be led to Death so this method cannot be advisable. The only way is to have patience until the

the head is born after which you may try to untwist the Cord; or if you cannot do this you may take the Scissors & cut the Cord, it is not attended with the Danger & Difficulties attending it before for there is no difficulty in cutting it now as the cord is without the Os Externum & so likewise there is no Danger of hurting the Woman; there is no Danger of the Child because an assistant can compress the Cord with finger & thumb & you pull away the Child immediately & tie the Navel String at the common place & altho the Child should lose a spoonfull or two of Blood so much the better.

3 Floodings. A Flooding may happen in all the Different positions of the Child that I have mentioned here & when they are violent, will make it necessary to Deliver the Child, & here when the Child presents its head it presents in the most unfavourable manner for the presenting the feet is the best manner, & the further it deviates from the feet the more Difficult it is. The method you use is you introduce your hand up the vagina & you may often find a mass of Coagulated Blood, which you



you take away & now you have an opportunity  
 of examining the mouth of the womb if the  
 flooding has been great it is always somewhat  
 opened then with your fingers you Dilate the  
 mouth of the womb slowly for if you do it  
 suddenly it will as suddenly contract, then  
 you'll feel the membranes & the head of the  
 Child, for you can always feel the part of the  
 Child that presents thro' the membranes, you  
 now endeavour to break the membranes &  
 sometimes this is difficult to do, you try to  
 do it with your finger & thumb, but it is  
 sometimes necessary here to try Different  
 Directions in order to fall upon the weak-  
 est part & I have seen Gentlemen fail in  
 doing this & when I came by trying dif-  
 ferent Directions I have done it but once,  
 as soon as you have broke the Membranes  
 you push up your hand into the Uterus as  
 quick as possible not to allow any of  
 the water to escape for if it should escape  
 the Uterus would contract & thereby hin-  
 der the turning of the Child & by the wrist  
 the mouth of the womb will be exactly  
 stop't so that none of the water can escape  
 then you take hold of a foot & by pulling  
 the

the Child will turn round with the greatest ease  
 & when turned you withdraw your hand as  
 you have now no more Use for the waters.  
 But only to flow out to lubricate the passage  
 know when you have turned the Child you  
 need not be in a hurry to Deliver the Child  
 because it is in such a position that you  
 can Deliver it when you please without  
 the Assistance of Labour pains & after  
 the Child is turned more women are hurt  
 by it being suddenly than gradually de-  
 livered & like the Paracentesis of the Abdo-  
 men where the water is drawn off suddenly  
 if there is no compression made the person  
 will faint & often will never come out of  
 it. So in this if the Delivery is done so-  
 suddenly with the Child delivered immedi-  
 ately after the waters are evacuated, the  
 person may faint & prove mortal;  
 but if when after the waters are evacuated  
 you wait some time untill the Uterus is  
 contracted, you have not this Danger.  
 When the waters are evacuated the womb  
 will contract & thereby the Flooding will  
 be lessened & therefore you may wait  
 without there being any Danger from it.  
 If the Woman has Labour pains along  
 with the flooding I have said it is not in  
 the

least Dangerous, Sometimes Women have pains along with the flooding which are not the true pains & may be known as they are trifling & not so regular as the True pains & are owing to Clotted Blood in the Uterus stimulating it & causing small pains.

When the Flooding is accompanied with the True pains as soon as I find the waters collected I break the membranes & allow the water to escape which causes a contraction of the womb & stops the flooding then I allow the Labour pains to force down the Child. Mrs. was surprised to observe

that those Women who have floodings along with the Labour pains have a less hemorrhage than those about the sixth or seventh month; but this is no matter for wonder at all, for when the waters are evacuated the Uterus contracts close on the Child & when this is the case the vessels of the Uterus are also contracted.

In all women who have lost a great quantity of Blood by the flooding, it is necessary that you compress their Abdomen with a Runda &c & give them some strong Cordials to prevent them from fainting, which



which may prove mortal & if possible support them the first hours after Delivery for very few Die of a flooding provided they live six hours after Delivery. —

#### 4 Twins or More Children

There are sometimes 2, 3, 4 & 5 Children in the womb at the same time, you'll find accounts in different Authors of the womb containing more, but they are not well vouched, but we have many well vouch'd examples of 5 at a time, in Aristotle you'll see a Case of a Woman being delivered of 25 Children at 5 Months & Monfr <sup>Beau</sup> mentions a woman who was delivered in the Hotel de Dieu of 5 Children at a birth. In the Memoirs of the Academy of Sciences you have a Case of a Woman being Delivered of 9 at a time; you may read of the Egyptian Women miscarrying from 5 to 10 Children at a time. There was a man presented before the King of Denmark who had 73 Children by two wives he had 6 times 6 Children, 5 times 5, 2 1/2 times 4 Children at one birth We shall now give the distinguishing marks of Twins One

One symptom which has been by some thought to distinguish a woman having two or more Children is by being more bulky, but this is not a certain mark for a woman having only one Child which is large & the waters in great quantity she may appear as bulky as a woman with two or more Children. Another mark is a Distension on each side the Abdomen & a Depression in the middle, but this likewise is not a certain mark of Twins, for the Children may be so close to one another that the Belly will be as much Distended at the middle as at the sides. Another mark is by the motion of the Child, when there are two or more Children the motions are more frequent & more confused. When there are two or more Children they never go to the full time & the greater the number of Children they go the further from the full time. the Children are smaller & the waters in less quantity; so if a woman is very bulky & is not come to the full time when she takes her Labour pains you may suspect that she has two or more Children. These symptoms are uncertain when a Woman has them you have a suspicion but then you are not certain.

but then you cannot be certain until one Child is Delivered. After a woman is Delivered if you put your hand on her Abdomen if she has no more Children you'll find a Tumour about the bigness of a Child's head which is the Uterus contracted to that bulk, but if the Belly is still a good deal distended then you may be sure there are more Children. If after the first Child is delivered there is a continuance of the pains, you may suspect there is another Child, but this is not a certain mark, for sometimes they have small pains after Delivery when there are no more in the Uterus, & when there are more Children the Uterus there is not a continuance of the Labour pains & will have no pains sometimes for 24 hours after the Delivery of the first Child.

The Difficulty in extracting the Placenta. When there are twins you cannot extract the placenta after the first Child is born & the second one in the Uterus, so after you have tried to pull it away by the cord unsuccessfully (which may happen when there is only one Child) & has waited perhaps an hour & is no better, then you introduce your hand up the vagina to



to pull away the Placenta & if there are any more Children you will feel the Membranes distinctly. sometimes when you introduce your hand into the Vagina you will feel the membranes. These are the marks for knowing when there are two or more Children. I shall now speak of

### The method of Delivering Twins

All the Different postures may be reduced to the rules I have already given. The positions of Twins may be reduced to the following

1<sup>st</sup> When they both present the Head. In this case you'll allow the Labour pains to bring them down as in the common Natural way & after the first is born you promote the Delivery of the second by breaking the membranes.

2 When the one presents the head & the other the Feet, either the first presenting the head & the second the feet or the first presenting the feet & the second the Head. when the first presents the head you allow it to come down in the common natural way, & by the marks mentioned you feel another & you find that it presents the feet, you break

break the membranes to forward the Delivery & you allow the Labour pains to force it down which they will easily do as the Child will be small. or if no pains you can Deliver it.

3. When the first presents the Head & the other the Breech. The first is delivered in the Natural way; I have said before that in the one half of the Breech cases you are obliged to bring down the feet & deliver by them, but when Twins come double you should allow the Labour pains to force them down, which they will always do as the Twins are smaller than other Children; indeed there are a few Exceptions to this as when the Child is large & in Twins the one is larger than the other & you will sometimes be obliged to bring down a foot but this is very seldom.

4. When the first is lying across & the other presents the head. The first must be turned & brought away by the feet, & in the turning of the first you are in danger of breaking the membranes of the second & thereby make a Confusion of Parts, for if you take hold of a foot of each Child

Child instead of both feet of one Child you  
 will bring both Children in the passage  
 at the same time & they cannot be Deliver-  
 ed in that way, but I think all this may  
 be easily prevented, & I think that there  
 is no Danger of breaking the membranes  
 of the second by turning the first as the  
 membranes are very strong, but altho  
 they should be broke & that there is a con-  
 fusion of the parts of the Children & you do  
 not know a foot of the Child that presents  
 from a foot of the other, yet you can ea-  
 sily discover a foot from a hand so you  
 can content yourself by taking hold of  
 one foot only & by pulling it you bring  
 that Child only in the passage & you  
 deliver it in the way before mentioned  
 for the feet. The second presents the  
 head so you allow the Labour pains to  
 force it down as in a common natural  
 case. It very often happens that after  
 the Delivery of the first there is a con-  
 stant pressing down of the Altius by  
 which the membranes are greatly dis-  
 tended so that you cannot learn the  
 position



position of the Child as you cannot feel it so you ought to lay the woman in such a position that you can deliver her easily in case the Child should be in a wrong position.

5 When the first Child is in a right enough & the second in a wrong position. The first you Deliver in the common Natural way, & for the second if both hands present which is the worst position you introduce your hand & break the membranes & as in cases of Flooding you must endeavour to save as much of the water as possible in order to turn the Child with the greater ease, so you thrust your hand into the Uterus as soon as you have broke the Membranes & take hold of a foot & turn it. then you deliver it in the way mentioned before.

6 Where they both are in a wrong position. you turn the first Child in the common way, & the second you endeavour to save the water as in the case of Flooding, turn the Child & deliver in the way mentioned before.

Now you perceive that all the variety of Turns is a repetition of the Labours before mentioned only in the second when

when it is in a wrong position to endeavour to save the Waters in order to make it turn with greater ease. After the Delivery of the first Child the woman has sometimes no appearance of Labour pains to Deliver the second & sometimes may remain so for 48 hours & I have had cases of them being 24 hours after the first Child was born & there being no Labour pains & here you should put the Woman in the proper posture & break the membranes & let out the water for when the mouth of the Womb is Dilated (which was done by the former Child) we may freely break the membranes & let the water escape which will bring on the Labour pains & procure the Delivery. You may see in Authors Cases where there are longer Distances of time - between the Children than 48 hours, sometimes a month & sometimes two months but this is owing to the Woman having a Double set of parts or having two Uteruses which sometimes happen, & if the second Child is not born within the 48 hour after the first, it is always owing to this Cause.

The

The method of Extracting the Placenta.  
 The same Rules laid down for the extracting  
 the placenta when there is one Child will  
 take place when there are Twins, you take  
 hold of the two Umbelical cords & pull in  
 the manner above Directed & altho one  
 of them should break you can pull by the  
 other & if this method fails you can intro-  
 -duce your hand into the Uterus & bring  
 away the Placenta as before Directed.  
 Sometimes there are more than two, some-  
 -times 3 or 4. In cases of three Children  
 they are generally smaller than Twins &  
 are Delivered in the same manner & you  
 have only one rule more to Repeat.  
 When a Woman has three Children she  
 does not go so near the full time as a  
 Woman with Twins, so when you see a  
 Woman who is very bulk & seized  
 with her labour pains about three  
 weeks from her full time you may  
 be almost certain that she has three  
 Children. Sometimes when there are  
 three Children the womb is so much  
 Dilated as to lose the power of Contrac-  
 -tion & thereby has no Labour pains  
 & so the Child can make no progress, this  
 is



is a True Forceps Case as the Labour pains  
 have failed the woman, the mouth of the  
 womb Dilated & the Child advanced, there-  
 fore you must use the forceps. I had  
 a Case of this some time ago in the Infer-  
 mary. The pains had left the woman  
 & I used the forceps after this Child was  
 delivered I found there was another  
 & as the Uterus could now contract &  
 so bring on Labour pains I left this  
 Child to the Gentlemen to be Delivered in  
 the common natural way, which accord-  
 ingly was done & when it was Deliver-  
 ed I found that there was another Child  
 & as the woman was become very  
 weak & the pains trifling I delivered  
 her with the Forceps & the Mother soon  
 recovered & the Children all Lived; the  
 last Child I might have turned & brought  
 by the feet, but in this case it was  
 easier to Use the forceps as the Child  
 was small. but if the Child had been  
 large & not far advanced it would  
 have been proper to have Turned the  
 Child & brought it by the feet. So when  
 there are 3 Children it is a reputation of the

The Rules laid down before.

Sometimes there are 4 Children, they are delivered in the same way as three as it is only a repetition more of a Rule with this difference only that here there is no occasion for turning the Child & bringing it away by the feet when the head presents for as the head is small you can take hold of it & bring it away, for the Difficulty of bringing down the head in the former Cases was owing to the largeness & slippery nips of the Head. The Extraction of the Placenta when there are 3 or 4 Children is the same with there being only one you take hold of the 3 or 4 Umbilical Cords & if it does not come away easily in this way you can introduce your hand & extract it.

# The management & Diseases of Women & Children after Delivery.

Midwifery is properly divided into 3 parts

**I** The Anatomy of the Parts & the Diseases of them & those peculiar to persons unimpregnated.

**II** The method of assisting Women in Delivery, in the Natural, Laborious & Præternatural Births.

**III** The management & Diseases of Women after Delivery & also the Care & Diseases of Children.

This is not the least usefull part of Midwifery for a person practising it may not meet with above three Difficult Births whereas she will meet with a variety of Diseases after their Delivery.

This part may be divided into 3

1 The Treatment of Women after delivery when nothing remarkable happens.

2 The Diseases of Women after Delivery

3 The management & Diseases of Children after Delivery



5 The Treatment of Women after  
Delivery when nothing remarkable happens  
 This is more simple than what it was  
 a hundred Years ago. for Ambroise Parey  
 & his Predecessor for a month after the  
 Woman was Delivered made some Appli-  
 cation every Day as applying Sheeps-  
 Skins, Traist Cloths. Plaisters &c. to the  
 Abdomen & parts of Generation: but this is  
 laid aside now & there is a more simple me-  
 thod used. The first thing to be done is to undress  
 the woman; the women in this Country have  
 a particular Dress, which must be frequen-  
 tly changed & remove the foul soiled Linnen.  
 It is common after Delivery to give some  
 Cordial, but this is very different in  
 different Countries, in some they give  
 Bile Medicines as Sperma Belt, Oil &c. as  
 they think that all the parts are overstret-  
 ched & that these Medicines would supplie  
 them & restore them to their former Tone.  
 Some give Carminatives, to remove the  
 after pains as they look upon them to  
 be that species of Colic owing to flatu-  
 lency: but a Cordial is very necessary  
 especially if the Woman had been long in  
 Labour

Labour. & may give Warley Cinnamon-  
Water, Water Gruel & Cinnamon Water or  
wine amongst it &c.

The next thing is the proper degree of heat  
necessary for the woman to be kept in.

Physicians have been mistaken in think-  
ing that it was necessary that they should  
keep warm & sweat profusely after Deliv-  
ery, as they have a Disposition to sweat  
at this time they think that it is an opera-  
tion of nature & that it will be of service  
to them; indeed most Women have an incli-  
nation to sweat at this time, but still it  
does not appear clear that it is an effort  
of Nature to free herself of something noc-  
ious so as to be encouraged, for this ten-  
dency to sweat is brought on by several  
circumstances as from the preceding La-  
bour, from the Additional Dress, from the  
Watery Drinks & from the Evacuation of  
Blood. We know a violent Labour being  
a violent Exercise will encrease the Cir-  
-culation will produce sweating; the Addi-  
-tional dress as a Petticoat short Gown &c.  
will encrease this Disposition, the eva-  
-cuation of Blood which relaxes the Sys-  
-tem & the warm watery food encourages  
the

the Sweating. In this way Sweating has been thought necessary to women in Child Bed, as they generally have a tendency to it by these circumstances. But Sweating is not only unnecessary but even hurtful to Lying in women & those women who sweat much are liable to more accidents than those who sweat little & we really find nothing here that requires sweating unless on the 3 or 4 Day when there ~~is~~ <sup>is</sup> great quantity of milk secreted & some of it absorbed, <sup>into the blood</sup> then a sweat may at this time do service by carrying it off, but still this is better effected by other Evacuations as Stool as giving at this time a Gentle Dose of Physic. But we find in fact that those who recover best are those who are kept coolest, & I first found out this by the Ward in the Infirmary, where there is a free Circulation of the Cool Air, it might have been thought by some that it was owing to the Women who were there being more Robust than other Women, but this was not the Case for they recovered sooner than the Robust among the Common kind of people in the Town, when I found this to be the Case I tried the same method with people



in the Town, but this could not be done altogether for the Ward is large & there is only one fire at the end which is opposite to the door by which there is a circulation of cool Air thro' it & the Rooms in the Town are small & confined & having a fire in them become a great deal warmer, but I found that by keeping them cooler than usual they recovered as well in three weeks as they did formerly in five & when they went out they were not so liable to catch cold. & I shall show you afterwards that Women who are kept sweating are more liable to feverish fits or Ephe-mera commonly called Meads.

Food. The Spare Diet is commonly recommended to them & are generally not allowed any Animal food till the 9 or 10 Day after Delivery, but I think this is a mistake for there should not be such a sudden change of Diet, for by putting a woman who lived high on this Low Diet all of a sudden may do her a great deal of harm, besides there is nothing here to indicate this Low Diet unless it be the Milk fever & this this does not last above a Day; Likewise we do not see any such thing in the Rorute Creation for at this time they live on the same kind of food

as usual, unless it be those animals who are immediately under our Care, by the notion of some people receive some unusual kind of food. I think the most proper Diet is they should have the same Breakfast as usual with Tea & Bread, some Animal food to Dinner & Beef Tea or Chickenbroth to drink after it; Tea again in the Afternoon: The Supper should be light or some what Cordial as Bread Kerrey with wine &c.

Necessary Evacuations. Generally after Delivery the Intestines are weakened & are thereby Costive, here Glysters are very proper & the simpler they so much the better; Women on the 4 or 5 Day have sometimes a Diarrhoea from the milk going back & running off by the Intestines, but if Glysters are given before this, it is prevented & they should be continued for the first fourteen Days if they are Costive.

The Woman should be kept quiet & free from passions of the Mind for the nerves of Women are very Irritable & Circumstances which would not affect them at any other time will affect them now; I have said that Pregnant Women are likewise more Irritable than

than at any other time & passions of the mind  
 will make them miscarry, so the same pass-  
 ions will affect Syng-in Women & produce  
 Diseases. I had a case not long ago of a young  
 Lady who had a very easy Labour & was some  
 hours very easy: she had a Cousin who  
 about four months before had died of an In-  
 flammation of her womb & she had ever since  
 thought that she would Die of it also, when  
 the after pains came on, she told me she had  
 an Inflammation of her Womb, I endeavour-  
 ed to persuade her to the contrary & told her  
 the true cause of the pains, I called upon  
 her in the evening being 8 or 10 hours after  
 Delivery & was told that she was asleep &  
 I did not chuse to awake her. I called next  
 morning & I found she was Delirious &  
 she Died that Day. I have had many such  
 Instances, & these show the necessity of keep-  
 ing them as quiet as possible. In Holland  
 they are very Carefull as to this for when a  
 woman is Syng-in, a board is put out at  
 the Window & when this is the case no Officer of  
 Justice or any such person can enter the house  
 so as to give the person any Disturbance.  
 The next thing that comes under our notice is  
 the



The time the woman should be shifted. —  
 It is common not to shift them for 9 or 10 days  
 after Delivery for fear they should catch cold  
 but this is very wrong for in that degree of  
 heat in which they are kept the blood <sup>in</sup> is  
 evacuated altho it seemed hard yet will  
 become putrid & putrid steams will arise  
 from it & as they lie with a Pelliccoat for col-  
 lecting it, this should be shifted soon after De-  
 livery about 12 or 24 hours after it; About the  
 fourth or fifth Day they should be shifted totally, the  
 bed gown, shift &c & at the same time that you do  
 this you can take them out of bed; but this last  
 depends upon several circumstances as the  
 strength &c. of the woman; they are generally  
 taken up in the Evening, but as they are com-  
 monly a little feverish for some Days after  
 Delivery & are apt to faint the first time  
 they are taken up, so it will be better to take  
 them up at Mid-day for the first time & they  
 are generally taken up two Days after this  
 & shifted again & then set up a little every  
 Day. The next thing to be enquired into  
 is the proper time to go out. This varies  
 according to the constitution of the woman.  
 @ & shifted every Day afterwards but

but generally three weeks is soon enough & they should <sup>not</sup> use great motion before this time for unless the person is strong, it will bring back the Lochia & this will happen untill such time as they alter which will be in three or four weeks after Delivery & untill that time they should not go out.

In those women who do not give suck it is common to give a Dose or two of Physic as Senna & Manna before they go out which is very proper. This finishes the account of the Treatment of Women after Delivery when nothing extraordinary happens. I proceed to.

## 2 The Diseases of Women after Delivery.

I divided the Diseases of Pregnant Women into three different classes as they happen at the Different periods of Pregnancy, so likewise the Diseases of Women after Delivery may likewise be divided into three as they happen at the different Periods.

- 1<sup>st</sup> Those happening after the Delivery to the third Day
- 2 Those between the third & the sixth Day
- 3 Those between the sixth & the ninth Day

If a Woman recovers well for nine Days she generally gets free of all the Diseases liable to lying-in Women. The ninth Day is thought by the Women to be a critical Day altho they should be walking about on the 8<sup>th</sup> Day they will keep their Bed on the ninth for fear any accident should befall them, as they think if they are indisposed on that day they will be long in Recovering; but the ninth is no critical Day & if there are any it is the 3, 4 or 5 when the Lochia Dries up & the Milk comes into the Breasts.

1<sup>st</sup> Those from Delivery to the third Day these are Violent Faintings. Spasms in the Region of the Uterus &c. After fainting Rec.  
Faintings are not uncommon the moment the Woman is brought to bed especially if the Child is bulky & the woman suddenly Delivered which produces faintings in the same manner as the operation of the Paracentesis of the Abdomen does it; likewise fainting may be produced by the Woman loosing a greater quantity of Blood than usual; but if the Pulse can be felt distinctly altho it is smaller & frequenter than usual.  
 if



if they do not remain long in the fit altho they have fainted quite away, if they are attended with no Chilliness or Coldness, if all one of these happen they are not Dangerous & are cured by Cordials & making a pressure on the Abdomen with a Towel or Napkin being tied firm about their Bellies; Likewise Spirituous Medicines applied to the Temples are of Service. But there is a kind of fainting fits which are very mortal, <sup>not</sup> altho they never faint quite away but a great Disposition towards it continues, you can scarcely feel the pulse from the beginning, the Body cooler than the Atmosphere & a Chilliness & Coldness. I say faintings attended with these Circumstances are commonly mortal & they generally Die 2 or 3 hours after Delivery; & if the person dies of faintings it is always soon after Delivery & always within the sixth hour after delivery so that altho a person has violent fainting fits & live more than six hours after Delivery you may form a favourable Prognosis. I have had two or three Instances of persons dying of faintings but I never had an Opportunity of dissecting any of them to find

find the Cause of these faintings, it does not seem to be owing to the Hemorrhage from the Vagina, for in these Cases I saw it was no greater than Common, but it may be owing to an Internal Hemorrhage, & this is more probable as the persons who Die of this have commonly been valetudinary for some time, are weak & have had a tedious Labour & the Symptoms that appear attend Internal hemorrhages as the smallness of the Pulse from the Beginning & can scarcely be felt, the Coldness & difficulty of Breathing owing to the Difficult Transmision of Blood thro the Lungs & altho the great Coldness which they have would require more Cloathing yet they cannot bear it as the Difficulty of Breathing will be increased. It is possible to do any good here by Medicines, it must be by strong Cordials & to remove the Coldness - Bottles of Warm Water applied to the feet are very good.

Spasms in the Region of the Uterus or in the Thorax. I had a Case of a Lady who in the time of her Labour, was seized suddenly with a violent Cough & Difficulty of Breathing, she could swallow nothing & expectorated a great quantity of frothy stuff

stuff. I got her Delivered but it remained several  
 hours after this & it went off as suddenly as it came  
 on. Spasms in the Region of the Uterus sel-  
 dom happen till they are 3 hours Delivered &  
 commonly about 24 hours; it is distinguish-  
 ed from the After pains by the pain being con-  
 stant whereas ~~as~~ the after Pains come & go;  
 it is distinguished from an Inflammation of  
 the Uterus by there not being that hardness  
 of the Pulse & sickness which is always pre-  
 sent in the last; it is necessary to make  
 this Distinction as their Cures are different  
 the Spasm is cured by large Doses of Opium  
 which does harm in Inflammations. I had  
 a case of a woman who ten or twelve hours  
 after Delivery was seized with a violent  
 constant pain in the Abdomen, the person  
 who attended her took it for an Inflammation  
 of the Uterus, he bled her & as it did  
 not relieve her & the Blood was Ruffy  
 (which commonly is the case with every  
 woman after Delivery) she was bled  
 again & without relief & by the Evacua-  
 tions she was thrown into Hysterical fits  
 when I saw her I was obliged to give her  
 strong Cordials & large Doses of Laudanum.  
 So you see here that it is dangerous to  
 take



take the one for the other. For the Spasms Opium is the only remedy in a proper Dose & frequently repeated as a Dose every 12 hours if the first dose does no Service but rather increases the pain, you may be almost certain there is an Inflammation you must then stop the Opium & treat it in another Method; In the Case of Spasms the Application of Camphor to the Abdomen is also of Service.

After-pains. These often happen & may be distinguished from the True After-pains as they are not so frequent & regular as they are. This may be owing to various Causes as Clotted Blood in the Uterus, pieces of the placenta remaining in the Uterus or any thing that prevents the Contraction of the Uterus, & a varicose Air in the Intestines; we find that they are more frequent & severe in those who have many Children than those in their first Child for in the first the Uterus has been often dilated & thereby will contract slower but in the last the Uterus by being never Dilated before will contract sooner. If the pains are moderate nothing is required & La Motte says that they are of service; if the Cause of After-pains is the slow contraction of the Uterus, nothing can be done but to have patience, when the clotted Blood is the Cause of this, some have recommended

recommended the introducing the hand into the Uterus to take it away, this gives pain to the woman besides it will not answer the purpose, for the blood will soon gather & coagulate again; some again have recommended the injecting warm water into the Uterus to wash away the coagulated blood, but this is very troublesome to do & besides it does not remove the Cause, for altho you should wash away the clotted blood, it will soon gather again. Many Medicines have been recommended for these pains as Bile substances, as Draughts made of Sperma. Peti. or Oil of Sweet Almonds &c. When the pains are mild any such Medicine may seem to be of service, as the pains would go off of themselves in a short time & any medicine that is given a little before they go off, will receive praise, but Opium is the best Medicine & if you can by it remove the pain for 48 hours, they will never return as at this time the Lochia intermit, you should give it in large Doses & repeated every 12 or 24 hours as the symptoms are violent. — Small pieces of the Placenta left in the womb. — When owing to this Cause the pains are seldom so severe as in the former Case, & this is not dangerous & requires no particular Treatment for the pieces come away with the flow of the Lochia. Another Cause is Rarified Air in the Intestines. Those Women who were fastid in pregnancy when they are Delivered the Air in the Intestines becomes

becomes rarified & there is a motion in the Belly as if there was another Child & you cannot be certain untill you introduce your hand into the Uterus, indeed by putting your hand on the Abdomen you will find the Uterus contracted & then you are sure there are no more Children. Apoplectic Injections give relief here as III of Apoplexia put in a Common Clyster. Sometimes it is very difficult to remove the Coagulum as it has prevailed for a long time & I have seen it 48 hours after Birth before I could remove it.

There are a great many Nostrums for the after-pains & have come into reputation by being applied when they were going off & not by their possessing any Virtue

### Immoderate flux of the Lochia

Every Woman has the Discharge of the Lochia after the separation of the placenta from the Uterus & this Discharge will continue 2, 3, 4, 5 and sometimes 7 Days. The stronger the woman is the discharge will continue a shorter time as the vessels of the Uterus will contract quicker & the weaker & more Delicate the woman is, it will continue longer. & we find this to be the case with all Hemorrhages as in Amputating a Limb, if the person is weak & Delicate & after the Surgeon has taken up the most remarkable Vessels, the small vessels will bleed & you are



are obliged to apply some Styptic to them; but if the Person is strong & healthy, after the most remarkable vessels are taken up there will be no Hemorrhage at all. You perceive there is no stated time for the continuance of the Discharge. It is not easy to ascertain the quantity that is discharged nor is it material, for in 20. Women the quantity is not the same in two of them but different from one another. De Haen endeavoured to ascertain the quantity by washing the Cloths in a certain quantity of water & then tried how much blood, that quantity of water would take to give it the same appearance, but this is unnecessary, for the quantity is different in Different Women & we are not regulated by the quantity discharged but by the Symptoms which attend it. When this Discharge is in too great quantity it is called an Immoderate flux of the Lochia or Flooding. All those Women who are naturally of a Sarc habit of Body, whose blood is thin & watery & of a scorbutic habit are liable to this Disease. But the Immediate Causes of this Disease are long & tedious Labours & especially long labours in those who have had children before - the too free use of Stimulating Medicines, Passions of the mind, too great force being used in extracting the Placenta. Any thing that prevents the contraction of the Uterus, pieces of the Placenta remaining after Delivery. Rupture of the Uterus

uterus & here the Hemorrhage will not seem  
 great as little will run by the Vaginae but  
 into the Cavity of the Abdomen by the Rup-  
 tured part. This Disease will likewise hap-  
 -pen without you being able to ascribe any  
 Cause, as any thing that prevents the Uterus  
 from Contracting occasions this Disease.  
 When now Delivered the Danger is according  
 to the violence of it but if the woman sur-  
 -vives six hours after Delivery, they are ou-  
 -ter destroyed by the Hemorrhage & I have  
 seen Women have very violent floodings  
 for two, three, four & even eight Days & some-  
 -times to the length of fainting yet they never  
 Died: so this is a good deal we have lear-  
 -ned in the Prognosis, that we may pro-  
 -nounce them not mortal if they survive  
 six hours after Delivery altho violent. -  
 I never saw one have such a violent flood-  
 -ing as a Woman in the Infirmary, it  
 continued for 8 or 10 Days very violent &  
 I thought that she would have Died & been an  
 Exception to the Rule I laid down however she  
 recovered. What I mean by these hemor-  
 -rhages are not mortal if the person lives  
 Six hours after Delivery altho violent, is  
 that

that it never proves Immediate Death, but it may bring on some violent Chronic Diseases as Dropsies &c. which may kill them.

The only remedy here is Opium; & if about three hours after you have given a Dose of Laudanum, the flooding is no better, you may still expect success by giving another Dose; likewise strong Cordial Medicines should be given, one at first sight would be afraid to give them as they increase the Circulation, but at this time they would sink under it if not supported by Cordials & as their Stomachs cannot bear much at this time without throwing up, it will be necessary to give them in as little bulk & thereby strong as possible so Spirits which are improper in other Cases are very proper here. Likewise you should introduce your hand into the Uterus in order to know if there are any thing there which prevents its Contraction, perhaps there may be two Child having separate Placentae & only one Delivered, you know if there is a Child remaining in the Womb by putting your hand on the Belly of the woman, if the Uterus is contracted to the size of a Childs head you are sure there are no more Children, but if it is still much dilated you have a suspicion & for



for you knowing more certainly you must intro-  
duce your hand into the Uterus.

The Uterus sometimes does not contract so quick-  
ly as it ought & thereby the mouths of the ves-  
sels are more patent, A very good remedy  
here is to throw up some Cold Liquor into the  
Uterus so as to make the Blood coagulate in  
the mouths of the vessels & thereby stop them,  
& it is needless to use Astringents as they pro-  
bably can never reach the mouths of the ves-  
sels by the Blood which is in the Uterus &  
thereby can have no effect as such here, & so  
you can throw up some vinegar & water & the  
most ready instrument for doing this is the  
Wag & Pipe & you must continue the Injecting  
it for some time untill the Hemorrhage abates  
for the Blood in the Uterus will hinder the col-  
lapse of the Liquor having any effect for some time,  
& if this does not succeed no Astringent applica-  
tion whatever can succeed. Cold applications  
have been recommended to be made to the back  
& parts of Generation which act in a less degree  
than the former. In this Disease Astringents  
have been recommended as the Puls. stypticus  
but I never trust to any of them & the most  
effectual medicine is Opium in a proper dose.

In

In the Woman who had the violent flooding in the Infirmary I first tried her with Opium which did her no service, then I tried the Pulv. Stuph. & Gold which also did her no good then I went back to the Opium & gave it her in large Doses about 6 grains in the 24 hours which had the effect. When the Discharge is much abated but not entirely gone then you may give some Astringent medicine to stop it as now there is no Danger. Some have Recommended Ligatures & Sucking Glasses but I have mentioned that they are of no Use as they can only retain a small quantity of blood & if all the blood was evacuated except the quantity retained by them the patient would Die.

2 Those Diseases which happen from the third day after Delivery to the Sixth. These proceed from the secretion of the Milk & sometimes enters the blood & goes off by the other Secretions which allway gives some uneasiness to the Woman.

### Disorders of the Breast.

Always on the 3 or 4 Day some milk comes into the Breast & about this time the flooding is almost gone. The Breast differs from every secretory organ in this that any other secretion when once begun continues thro life.

Life as the Seminal Organs in Men, when  
 once they begin they continue for a long time  
 & if they should give over they never afterwards  
 secrete the fluid but the Breast secretes the  
 milk at certain periods only & depending on  
 circumstances, will continue for a little  
 time & when it stops can be again renewed.  
 Some have endeavoured to account for the  
 milk coming into the Breasts after delivery  
 by the Anastomoses of the Epigastric with  
 the Mammary vessels, as when the milk is  
 secreted in the Breast the Lochia are almost  
 stoppt, & say that the blood which was for-  
 merly carried to the Uterus is now carried  
 to the Breast by the Epigastric; but this can-  
 not account for it as the Epigastric Artery  
 has only a small connection with the Mam-  
 mary & indeed this theory is liable to un-  
 surmountable Difficulties. But we know  
 there is a remarkable Connection between  
 the Breast & Uterus, they both come to per-  
 fection at puberty, at this time the Menses  
 appear & the Breasts swell & as soon as the  
 menses appear they are capable of being im-  
 pregnated & in consequence to have milk  
 in their Breasts, we find also when the Men-  
 ses are obstructed they have often milk in  
 their Breasts, especially when obstructed  
 from



from pregnancy, as when they are obstructed from any other cause the Body becomes De-  
-ceased & Debilitated, but in all Recent obstruc-  
-tions from whatever Cause there is commonly  
milk in the Breasts; Sometimes when the  
Menses are obstructed blood has come from  
the Nipples & when the Milk has been obstruc-  
-ted it has issued from the Uterus. So you per-  
-ceive the connections between these two parts  
are very great. Likewise on the 3 or 4 Days  
after Delivery when no blood goes off by the Ute-  
-rus. Milk goes to the Breast.

I shall give a small Account of the Breast.  
A great number of small Glands enter into the  
Composition of the Breast & when each of these  
Glands swell to 3 or 4 times their common size  
as they do after Delivery, the Breasts become  
much larger, so this accounts for the encrease  
of the Breasts; from each of these small Glands  
a small vessel arises which join with one  
another & form a larger vessel which goes to  
the nipple & of these last vessels that terminate  
in the Nipple there are from 12 to 18 in number  
In other Animals all these small vessels termi-  
-nate in one large vessel - hence are less li-  
-able to obstructions than Men Women.  
The Breast is one of those parts that Anato-  
-mists are difficulted about & its structure is

is not well known. But we know that an Artery terminates in every Gland which separates the Chyle or milky part from the blood, which is conveyed in the manner mentioned before by the small vessels to the Nipple, & in every Gland there is a Vein which carries back the blood after the milk is secreted from it. That there is a connection between the milky vessels & Arteries appears plain, for if you inject the arteries of the Breast with  $\Phi$  you will fill the milky vessels & vice versa, & sometimes you'll find when Women have little milk & the Child applied that it will bring away blood: & after the milk is secreted in the Gland it is carried by the milky vessels to the nipple, there are a number of these milky vessels about 14 or 16, & when they come to the nipple they are contracted & not in a straight line & these circumstances are wisely ordained for if this was not the case the milk would run out, so that the Child could not get a sufficient quantity when it required it & we find that when the Child takes hold of the nipple that it stretches it out & brings the milky vessels in a straight line & thereby the milk runs out more easily.

When the Woman is to give suck to her Child she has seldom any pain from the milk & the

the sooner she applies the Child to the Breast the better v.e: as soon as the Child makes any signs that it wanted the Breast & milk to be put then the sooner you apply the Child to the Breast so much the better. If the woman is not to give her Child suck we must endeavour to prevent the Secretion there are a variety of Medicines used for stopping the Secretion, but no medicine can bring on this Secretion as few can stop it when begun, the Applications that have been made for this purpose are Sp. Vin. Camph. Vinegar. Spirits, these make the Skin stiff & thereby cannot stretch much & not such a great quantity can be contained in the Breasts but these give the woman more pain on that account: When we want to stop any of the other Secretions we go on another method, for example if we want to stop the Secretion of Urine we order them to Drink little, by which it is greatly Diminished so when we want to diminish the Secretion of Milk we must keep them on a spare Diet. In those women where the quantity of milk secreted is not great, there is nothing to be done if it pains her you can relax the Skin with some softening Ointment as Pomatum which will enable it admit of a greater Distention; the Milk after being secreted is taken into the mass of blood & then it goes off by the other Secretions commonly by stool & they have often a Diarrhoea at



at this time, sometimes it goes off by Urine & then it deposits a great quantity of a milky substance, sometimes it is deposited in the Membranes Cellulosa & produces Dematous Swellings sometimes it is Deposited in the Cavities of the Thorax & Abdomen & produces violent Disease In order to obviate these Diseases you must endeavour to carry the Milk off by the Intestines by giving gentle Purgatives & to use Suction; this last is of 2 kinds viz Wet & Dry the Wet, is when a Child is applied the Dry is when Glasses are applied. The wet is the best for the moisture of the Childs mouth washes away any thing that may obstruct the milky vessels which is sometimes the case for there are small Glands of the nipple which pour out a Liquor to Lubricate the parts & a downy substance grows there which being mixed together will form a paste & plaster up the milky vessels, which when a Child is applied is washed away, & when you know that a woman is not to suckle her Child you'll order her to wash her nipples two or three Days before Delivery & continue it twice a Day. I have said that the Nipples of Women are more liable to Obstruction than that in other Animals as there are 13 or 14 milky vessels in Women whereas there is only one large pipe

paper or Witches, & the wet Suction is better than  
 the Dry as by the Child the Obstructions may be  
 removed; Some have continued the Glasses for  
 some time after they have made the milk run  
 out of the Breast, but this is wrong it should  
 be continued no longer than to make the milk  
 run out, for by continuing it longer you in-  
 crease the Secretion of the milk, & the use of the  
 Glasses is to remove obstructions<sup>so</sup> that when  
 the Breasts are much Distended the milk  
 may run out. Any Glasp will answer as well  
 as those made for the purpose as a Glasp De-  
 canter or a Glasp for holding Vinegar or  
 Wine provided the mouth is large enough, you  
 pour in warm water into these vessels to ra-  
 rify the Air within it, then throw out the wa-  
 ter & apply the Glasp to the Breast, but the Nip-  
 ple should be washed previous to the Application  
 of the Glasp; but if the Nipple is so large as that  
 the Child can take hold of it, it will be better  
 to apply the <sup>Glasp</sup> Child; but sometimes the Breast  
 is so much Distended that the woman can-  
 not bear the least weight upon it not even the  
 weight of her shift. You must have recourse  
 to Suction & as soon as you <sup>have</sup> taken away a  
 small quantity the woman will be relieved.  
 Sometimes the Nipple is obliterated or  
 become

become very tender so that Suction cannot be used  
 then apply fomentations to the Breasts, which always  
 occasion pain at first & afterwards eases them &  
 I imagine the way in which they act is they will  
 rarify the Air in the blood & milk when first  
 applied by their heat, by which the Breasts is  
 more Distended & thereby cause a greater pain  
 but as it increases the space which the milk  
 would otherwise take up, the milk is thereby  
 forced thro' the Milky vessels & runs out by  
 the Nipple & thereby relieves them. Emollient  
 Ointments have been applied for this purpose  
 it will indeed relax the Pore & cause the  
 Milk flow more readily through the Milky  
 vessels, but these should be applied to & about  
 the nipple, for by relaxing the other parts of  
 the Breast, the milk will soon distend them as  
 much as before by the Secretion going on as  
 there is some room made for it, but when  
 Distended as before the secretion must stop,  
 these applications should be frequently renewed  
 as it will be easily robbed off. use perhaps  
 every six hours & at this time you should keep  
 them on a spare Diet. Discussing Plaisters  
 have been applied to the Breast in order to drive  
 back the Milk, indeed they may keep the Breast  
 open & keep open the Pores of the Breast & so  
 take



take of the Distention in some measure, but if the  
Plaster is of an Adhesive nature & if applied  
soon it will do harm for on the 3 or 4 Day the  
milk comes into the Breast & the plaster not al-  
lowing the Breast to yield to the milk it will  
occasion a great Distention & pain of it & it  
is like applying a tight Bandage to a sprained  
Ankle when now Received which will increase  
the swelling & Inflammation above & below  
the Bandage, so here it will occasion a swelling  
& Inflammation about the Breast.

The Breasts are liable to Obstructions a few  
Days after Delivery as the milky vessels are  
so small that little will obstruct them.

Suppurations are more liable to Lying-in  
Women than others & may happen whether they  
give Lact or not. The Symptoms with which  
these come on are Shiverings, Pain in the Breast  
& a Redness & swelling of it & here we must  
endeavour to Dissolve this or bring it to Sup-  
puration as soon as possible. We endeavour  
to Dissolve it by a spare Diet, for if the person  
lives well more milk is secreted & thereby  
the Obstruction becomes greater; Bleeding  
if they are some time brought to Bed, for if  
by about a week brought to Bed there is not  
son

so great an Occasion for bleeding as the discharging  
 of the Lactica answers its place, the Breast should  
 likewise be evacuated of the Milk, & if the Child  
 does not suck it you should get some grown-  
 up person to do it as Wet suction is better than  
 Dry. If this method does no service but the  
 pain & the Inflammation encreases, than we  
 are sure it is going to Suppuration, we must  
 now put them on a better Diet & lay aside all  
 Evacuations & apply a poultice to the Breast  
 Some have recommended fomentations great-  
 ly to forward the Suppuration, but they wet  
 the Patient & cool soon, so that on the whole  
 poultices are better & apply them fresh twice  
 a Day & before you apply it you may fo-  
 ment the Breast; The Poultices should be  
 of the Common kind, not made of stale Bread  
 & milk & a little Oil or Butter amongst it to  
 keep it soft. Many remedies have been thought  
 successfull in procuring the Suppuration in  
 the Breast, but Suppurations here differ  
 from Suppurations in other parts of the Body  
 in this that you never know when they are  
 to break, in Internal Abscesses we know when  
 they are to break, by the pain & fever being  
 greatly Diminished & in External Abscesses  
 the pain & fever is Diminished & the tumor  
 comes

coming to an Apex & the Skin thin, but in Sup-  
 purations in the Breast the moment before  
 it breaks the fever & pain are very great &  
 is hard to the feel & no fluctuation of matter  
 felt, so that if any thing is applied a little be-  
 fore it breaks it will receive the praise altho  
 it did no service in forwarding the Suppuration,  
 but as Women at this time are very Delicate &  
 we should therefore Endeavour to give them  
 peace of Mind & in order not to allow them to  
 think that we have forgot them you may put  
 some softning Ointment in the Poultice, as Ba-  
 silicon. you should allow the Breast to open  
 of itself, for if you use the Lancet you may do  
 it too soon & is apt to inflame & suppurate in  
 another part; & when it has opened it is unne-  
 cessary to enlarge <sup>the</sup> ~~by~~ <sup>an</sup> Incision, as it will en-  
 large of itself, for when the opening is about  
 the largeness of a donut only of a span in the mor-  
 ning, by the evening I have often seen a very  
 large opening; you must still continue the  
 Application of the Poultice, till the fever, hard-  
 ness & pain are entirely gone; it sometimes  
 happens that when it has healed another part  
 of the Breast inflames & suppurates, & some-  
 times the Breast which was before heal  
 inflames & suppurates, you must treat <sup>this</sup>



this in the way Directed above. Some Surgeons are afraid that the wound will heal when matter is in the Breast & therefore are very Assiduous to keep the External Orifice open & on that account put Dressings into the wound, but these irritate & inflame the Breast & there is no occasion for them for the wound will not heal as long as there are matters in the Breast & therefore you should dress it slightly, besides Dressings pent up the matter in the Breast, & none comes out until it is Dress'd but when Dress'd slightly the matter runs out as soon as formed. There sometimes happens superficial Suppurations in the Breast which are treated in the same way as mentioned before. All those Tumors of the Breast which are attended with great pain they will suppurate soon & be soon well & commonly according to the Degree of pain so is the Suppuration quicker & those attended with little pain are very tedious there is commonly a small collection of matter & when it heals it breaks out in another part of the Breast & will continue this way for some time; so when the pain is little & the Suppuration going very slowly on it will be necessary to apply some heating stimulating substance in order to forward it

and

and the Common people generally apply in this case  
 an Onion, or what will answer very well to this -  
 some strained Galbanum & mix it with some -  
 Basilicon with the Yolk of an Egg, some have used  
 for this purpose Mustard but this is very apt to  
 blister & will not be so proper. Sometimes after  
 the wound has healed a hardness will remain in  
 the breast for some months, no Application is  
 here necessary unless to keep the part warm &  
 it will gradually go off & here you may apply  
 a piece of Cats skin, flannel &c, but all your  
 stimulating heating plasters will do harm -  
 The Nipples are also subject to Diseases &  
 may be reckoned two

- 1 An Excoriation or Ulceration of the Top of the Nipple, &
- 2 An Ulceration in the Root or Areola &

this is always owing to a Venereal Taint.

- 1 An Excoriation of the Top of the Nipple.

The Nipples are very sensible for the skin of  
 them is very thin & a number of Nervous fila-  
 ments go to it & by the mouth of the Child they  
 are rendered more sensible. When the Glands  
 of the Nipple are affected so that they do not pour  
 out that viscid liquor to protect it & thereby  
 become more sensible & the least thing will  
 affect them; sometimes they become then very  
 spongy

Spongy which is cured by applying Astringent  
 Medicines, when a Woman is to give suck & her  
 nipples tender & Spongy we should endeavour  
 to harden the Skin with Spirit of Wine, a so-  
 lution of Common Salt, Orrizandy, Tinct. Myrrh.  
 which will harden the Skin & Destroy the Sensibility  
 but sometimes they will resist all these appli-  
 cations & in order to prevent the Child hurting  
 the nipple when it was sucking I tried mixing  
 a little of the Oil of Roes with Bees Wax & put-  
 ting it round the nipple & applying all over the  
 nipple a piece of Gold beaten Dead with some  
 small holes in that part which goes over the top  
 of the nipple in order to allow the Milk to pass  
 thro' it. This did not answer the Intention, but  
 when the nipple is affected by acromony in the  
 Childs mouth as is the case in the Thrush it will  
 be of great service as it will prevent the Childs  
 mouth from touching the Nipple. When you  
 apply Spirits to harden it you must not do it in  
 the common way which is to Dip a Cloth in Spirits  
 & apply the Cloth to the nipple, for after it has  
 remained some time it will harden so that you  
 cannot bring it away without giving pain,  
 & the only way is to wash it bearily two or three  
 times a Day. If the Excoriation is great this  
 method



method will not answer & will rather do harm as the  
 Spirits &c will inflame it & here you may try some  
 Softning Ointment as the white Cerate of the L. D.  
 which will sometimes answer very well, but it is  
 troublesome for the Dressing must be taken off & the  
 nipple must be washed every time the Child is applied  
 to that Breast, & I often try Astringents here as  
 Some water with some White Vitriol in it, which  
 does extremely well it deadens the skin & heals  
 the Excoriated parts better than the Ointment.  
 I have also tried Wades Balsam here, but it has  
 a Disagreeable smell to some people so that they  
 cannot bear it & it is inconvenient as it must  
 be washed off every time ~~the~~ Child is applied to  
 it & it cannot be easily washed off, but indeed it  
 answers very well & if the Child is to be applied  
 always to the heal Breast it may be used.  
 The Nipples are sometimes so much excoriated  
 that they cannot bear the weight of their shirt  
 upon it. in this case you should put over a  
 small thing in the shape of a slouched hat made  
 of Lead or Ivory to protect it. The nipples  
 will be sore sometimes for two or three months  
 let us do what we please & then they will heal  
 & sometimes they will drop off, or be so long  
 dead that there will be an absolute necessity  
 to take the Child from off her

2 When there is a slight Ulceration on the Areola. This will <sup>sometimes</sup> become no better by all the former applications & you are sure that it is owing to a Venereal Affection. To satisfy yourself you should examine the Child & then you can judge or if the Child is Dead you should enquire particularly about it. This is cured in the same way as the Venereal by the Application of ☿. & I need say nothing of it but refer you there. With regard to the other Tumors of the Breast as those of the Scirrhus & Cancerous kind, they are treated of in another place, & all I shall do is only to give a very few Observations.

Women sometimes have Scirrhus Tumors in their Breast for 25 years & in that space of time there is no increase of their growth nor do they give any pain; in this case we should do nothing to them & there will be no Danger till they arrive to the age of about 45 when the Menses stop & then they commonly inflame & turn Cancerous which is cured in the Common way by Extirpation of them by the knife for no External or Internal Medicine can be of service here; In the Extirpation of the Tumor it is very common with some when it is small to make a long Incision over the Tumor & take

take it out, as in this way they save a great deal of  
 then it will heal sooner, but this is wrong for  
 frequently the Membrana Adiposa over the Tumor  
 is also affected. & if it is not taken away it will  
 grow again so you should take away the membra-  
 na Adiposa as you do not know how far it is  
 diseased, & for the Difference of about one week  
 or two in the Cure it is wrong to hazard the  
 growing of it again so as to require another  
 Operation or to kill the Patient; Besides it is  
 agreed by all Authors that it is proper to keep  
 the Wound open for some time which does a  
 great deal to prevent a Return; so by this me-  
 thod of operating the wound is longer of healing  
 therefore that method is by far the Best.  
 I know a Lady who had a Scirrhus Tumor in  
 her Breast which was taken out by an incision  
 made over it, when nigh heal the Membrana  
 Adiposa which was over the Tumor inflamed &  
 became Scirrhus. I did not see her till this  
 time & I ordered the Breast to be taken off &  
 is now very well, but perhaps it may again  
 return when her Menstris stops. When the  
 Cancerous Tumor has gone so far on that we  
 cannot extirpate it then we must have re-  
 course to the Palliative which is to cause  
 them to keep the sore very clean & put them  
 on



In a cooling Diet is Living entirely on Milk & vegetables & avoiding every Stimulant or heating thing. One Dr Plunkard was famous for Curing Cancers by a Secret Medicine which he had, he came down to this place to Cure one on the face of a Man in which he failed we had an opportunity of Examining his Medicine & found there was a quantity of Arsenic in it, & when he Died he left his Recipe for the behoove of St Stephens Hospital in Dublin which was as follows Take of Colts foot a hand full of Dogs spleen three Sprigs, Sulphur & Arsenic of each three thumb full, these he mixed together P.A. & made them into balls, which he bruised & put on the sore but the most efficacious medicine here is the Arsenic.

This finishes the Disorders of the Breast.

### Feverish Disorders.

One would imagine that by the Spare Diet that Lying in Women are put on & by the Hemorrhage which happens at this time that they would not be so liable to feverish Disorders at this time as at others, but we find that they are most liable to them at this time.

The Causes some have imagined that it was owing to some fault in the blood, for when

when blood is drawn at this time it has always  
the Buffy Coat, but if blood is drawn in the time  
of Pregnancy it likewise exhibits the Buffy Coat  
besides the suddenness with which they come on  
& go off, & going off for the most part without  
any Crisis shows that it is not owing to any  
fault in the blood. Many think that the  
Furthest Disorders are owing to an affec-  
tion of the Nerves, but Anatomy has as yet  
given us very little knowledge of the Ner-  
vous System & as yet it is quite in the Dark  
but we should not Despair of ever arriving  
at any knowledge in it, but should enquire  
into it & may thereby make Discoveries, for  
there are many as surprising things in Na-  
ture which have been Discovered as Magni-  
tism, for if any person had said before the  
Magnet was discovered that there was such  
a body in Nature possessed of such surpris-  
ing qualities, who would have believed him?  
Likewise by inquiring into the Nervous  
System we may be able to account for  
many of the Phenomena altho we cannot  
show its nature, as was the case with Elec-  
tricity, altho the Great Men who have en-  
quired into the nature of it in vain yet  
by this they arrived to so much knowledge  
in it that they could explain many Pheno-  
mena.

mina relating it which would otherwise have been in obscurity.

We must consider the Cause of these <sup>to be</sup> an affection of the Nervous System; the principal parts of which are the Brain & Medulla Spinalis & the Nerves connect them with the other parts of the body. These feverish Disorders are owing to an Irritation on the Nerves & we find

1 That women are more Irritable than men being more Delicate, this appears from their shape, voice, look &c.

2 What weakens a woman makes her more Irritable, which Evacuations do; & either Man or Woman by Hemorrhages will be rendered Irritable & we find that if a woman in pregnancy has had a slight flooding she will have an exceeding frequent pulse for perhaps 2 months after & yet no complaint & if Evacuations are made on a hysterical Woman or if she is put on a low Diet she becomes so Irritable that the least noise will occasion an hysterical Paroxysm. & a person just come out of a fever, the least circumstance will quicken his pulse greatly - So in Lying-in women by the Hemorrhage which they have at this time they become more Irritable &



and this is greater in those women who are weak than those who are strong, & greater in those women who sweat much than those who sweat little, so that those Women who are strong & those who do not sweat are less liable to Feversish Disorders than those who are weak & who sweat much.

We find that what Diminishes the Irritability cures often these Feversish Disorders, & by giving your patient Wine & Water, such a Regimen does more service than Malted Gruel, & if you give a Dose of Laudanum which Diminishes the Irritability by lulling the Patient & diminishing the Sensibility.

3 Whatever increases this Irritability is common to all women after delivery will occasion Feversish Disorders. And to obviate this you must have regard to several circumstances.

1 It is necessary that you should consider the Constitution of your Patient, for if she is an Hypothetical Delicate person by keeping her on a low starchy Diet you will increase the Irritability & occasion Feversish Disorders, & she should be put on a solid strengthening Diet which all Hypothetical persons agree best with.

2 You should have a regard to the Evacuation which has happened, if the Lochia has flowed on

in a very great quantity, it will make the person more Delicate & therefore they should be put on a good Diet if the Lochia has been in small quantity & the person strong she should be put on a lower Diet.

Every Physician almost when he finds a woman in a feverish Disorder, endeavours to bring back the Lochia, as they think that the stoppage of it is the Cause; but here you must have respect to the Time, for if the feverish Disorder happens on the 10 or 12 Day & to endeavour to bring down the Lochia at this time is as ridiculous as to bring down the Menstruum in the middle of a period to cure a Fever, but if it happens on the 3 or 4 Day & has had very little of the Lochia & pains in the belly &c. then you may endeavour to increase the Lochia by Blood-letting, fomentations to the parts of Generation &c. Again you must have a further regard to the Time these come on. If this feverish Disorder come on the Day after Delivery you are sure that it is not the Milk fever, if it happens ten days after you are also sure that it is not this fever, if it happens on the 3 or 4 Day you are not sure but that this is the Milk fever as it always comes on at this time you feel the breasts of the Woman & if you feel like milk in them or  
of

if they are become more Turgid you are sure  
 that it is the Milk fever, but altho they have not  
 become turgid yet you may suspect that it is  
 the Milk fever as it always comes on at this time  
 But if a Woman is seized suddenly with a  
 feverish Disorder & without any Cause or  
 if she is put on a Diet that she was not accus-  
 tomed to, as being formerly on a High Diet  
 now on a Low one then we are sure that  
 it is not the Milk fever; If the fever comes  
 on suddenly & without any Evident Cause  
 it is commonly not Dangerous; but if sud-  
 denly with an Evident Cause it is generally  
 Dangerous. You must consider in the first  
 place (when the fever arises from an Evident  
 Cause) whether the Body or Mind is affected  
 If the Mind is affected by some of the Passions  
 as Fear, Anger &c. a fever will be produced  
 & here the Cure will differ widely from an  
 Affection of the Body, for here by Quieting  
 & lulling the Patient over with a Dose of  
 Laudanum may cure the Patient whereas  
 by giving repeated Doses of Physic will only  
 encrease it.  
 The Fevers subject to Lying - in Women  
 may be Divided into three different kinds  
 which you can easily Distinguish from one another



1 Fevers without marks of Inflammation

2 Fevers attended with Inflammation.

3 Fevers with Miliary Eruption

The first may be divided into two

1 Those Fevers which are of short Duration

2 Continued, or those of longer Duration.

I shall not enter upon all the Circumstances necessary in the Treatment of these Diseases, it will be sufficient to mention wherein the treatment of these fevers in Lying-in Women differ from them when attacking Persons when not in this Situation; as these Diseases are fully treated of in Another place.

It is very difficult to know a fever in a Lying-in Women & you may think that she is in a fever when she is not, you cannot judge of her being in a fever by her Pulse, as Women in this situation have often a frequent pulse, especially if they are Delicate & yet are in a good way, & you'll often find the Pulse to be 120 & will continue so for two or three weeks after Delivery; You cannot judge from the Heat for women at this time are kept very warm by Cloaths & Warm Drink so that they have a greater heat on them than natural. A Symptom of fever is taken from the Urine being high

high colored & having no Sediment, or sometimes the Urine being pale, but you cannot judge of this here for in the first four or five Days, the urine is tinged by the Evacuation which happens at this time, & after the Lochia is dried up a mucous Discharge remains for some weeks & the Urine at this time is rendered whitish & thick by it, therefore you cannot judge by the Urine. But if you should find your patient very restless & uneasy, great heat on the skin, intense Thirst & frequency of Pulse then you are sure that it is a feverish Disorder. Now I shall treat of each in particular in the manner I proposed.

1 Fevers without any marks of Inflammation.

1 Those of Short Duration or what are called Ephemera or Weeds.

These commonly attack the more delicate Women & those who sweat much, it seizes them like a fit of the Ague first with a cold fit which is succeeded with a hot & sweating fit. they commonly ascribe these feverish Disorders to cold but the contrary seems only to be true for the most common cause is heat & great sweat produced but independent of this, nothing is more common than these to arise from the milk forming & from being absorbed into the Mass of blood, by irritating the system  
for

for altho Milk is a very milch Liquor yet we know that by Injecting it into the vessels of a Dog that it will kill them, so by the Milk being absorbed a fever may be occasioned. The only method of Cure is when the Cold set on to endeavour to bring on the Sweat as <sup>soon</sup> as possible & to do this without heating the Patient too much, & for this purpose give her some gentle Diluent Liquors gently warmed as Water Gruel &c. In the Long-in Ward there are never any accidents arise from the Diseases as they are kept cool, but when they happen nothing is done but applying a warm Iron to the feet in the time of the Cold fit & give her a Draught with some Spirit Cornu Cervi. If this Disease arises from the Passions, the only Remedy is a Dose of Laudanum & giving some warm Deluding Drink.

## 2 Continued Fevers or those of longer Duration.

It was formerly thought that women were not hurt by warm Regimen, but this is of the worst consequence, <sup>and</sup> I have often seen continued fevers brought on by this way & become sometimes very Delirious & their pulse extremely frequent. Among the first times I observed the bad effects of this Regimen was



was on a Young Lady who had taken a Cold, in  
 the time of the Cold fit they applied above 6 Warm  
 Irons about her besides she was in a close little  
 room with a large fire in it & gave her warm  
 Drink, by this method in a short time she be-  
 came very Delirious. I was sent for & I  
 knew what the cause of it was. I knew that  
 by plunging the patients hands in warm water  
 would be the most effectual remedy but as this  
 was uncommon & if she turned worse this would  
 have been ascribed for the Cause. the next thing  
 I could do was to take away all the Irons to  
 open the Windows & give her Cold liquors to  
 Drink. by this method her pulse soon fell &  
 the Delirium went off. At that time I had two  
 or three Instances of the same kind which showed  
 the Impropriety & bad effects of this method as  
 they were always cured by the Cooling Regimen.  
 If they were not much relieved by this method  
 in Twenty four hours then it becomes a con-  
 tinued fever; They are more Gradual in-  
 Syng - in Women than in any other person  
 as it is here very Difficult to know when they  
 begin as at this time they have a great heat on  
 them & always a frequent pulse. When these  
 Fevers are attended with passions of the  
 mind they are more violent & it often happens  
 that

that when they are seized with a fever at this time that they are afraid & think themselves Dying as continued fevers are more Dangerous ~~to~~ <sup>in</sup> Syng-in Women than other persons, & this fear makes them much worse. Delirium is not so very Dangerous in Men or intacta Puellae but this <sup>is</sup> not the case in Syng-in Women for a Delirium is always Dangerous in them but there are two Deliriūths, one arising from an Increased Impetus of the blood thro' the Brain & here there the febrile Symptoms keep pace with it. This is the Delirium that I mean to be Dangerous, but there is another & what I call a Vaporist Delirium, this is distinguished from the former by its happening to those Women who are very Delicate & who have suffered great Evacuations & it does not come on suddenly & the Symptoms as the Subcillus Tendinum do not keep pace with it & the only remedy for this is to give a Dose of Laudanum, which soon quiets her & she commonly awakes sensible, but if Laudanum was given when owing to the first kind would do harm & encrease all the Febrile Symptoms & when a woman is seized with this Delirium they seldom or never Recover. The Crisis is sooner here than in any other fevers as they com-  
monly

monly have it about the 6 or 7 Day & they seldom die if they live to the 9 or 10 Day of the fever — whereas a fever in other Persons, they'd sometimes die on the 13. 14th Day.

The Cure does not vary much from that of other fevers; you'll sometimes bleed them, but there you must consider the Evacuations they have undergone as the Blood, sweat, & also the Spare Diet they have been put upon. & this will make bleeding often unnecessary or at most done sparingly. Sweat is often the Crisis of these fevers, but you must not produce it by heating Medicines, & if a gentle sweat should come out & you see no other Signs to increase it, & if by this the febrile Symptoms are increased as Thirst more intense Uneasiness greater &c you must stop it as it will do the patient harm.

You give also as in other Fevers a Solution of Tart. Emist. in order to cleanse the Primæ Viæ as they are often owing to this Cause & if the Solution is given in small Doses it will operate both by Vomit & Stool.

Blisters. You should be more sparing of them here than in other fevers as you often cannot distinguish between that fever where there is an Inflammation of the Womb & this, in the first of which it may do harm.

\* Young does not give the reason why they are not proper in Inflammation of the womb. I imagine the reason is that blisters have a particular effect on the Urinary passages & produce an Irritation on them which Irritation may be communicated to the neighbouring parts as the Alveoli &c. and thereby will increase the Inflammation.



I do not mean by this that you should not use Bleeds in these fevers, but you should use them cautiously. Injections are very useful in Syng-in Women for they not only open the Uterus but answer as a fomentation to the Uterus &c if any way hurt or inflamed.

2. Fevers attended with marks of Inflammation.  
Such is the Composition of the Uterus that it is liable to Obstruction & Inflammation both in the time of Pregnancy & after Delivery. The Uterus itself is sometimes inflamed, & sometimes it is not the Uterus but some of the Neighbouring parts that are inflamed as the Ovaria. It is worse to Distinguish an Inflammation of the Uterus than an Inflammation of any other viscus, as a violent pain in the Side attended with great pain will Determine the Disease to be a Pleurisy, & a violent pain in the Region of the Loos with fever will show a Hepatitis; but we cannot so easily distinguish an Inflammation of the Uterus for Women at this time have often pains from other Causes, their pulses frequent when nothing is the matter with them & heat & Dorsalight without any fever; the only mark of Distinction is that all pains arising from Inflammation grow worse on the third day, whereas other pains go off at this time; Inflammations of the Uterus are often attended with

with Childbirth at the beginning which has been thought by some to distinguish it, but it also attends Spasms of the Uterus; also in Inflammations of the Uterus a hard tumor is felt in the region of it, but this does not distinguish for the same arises from Spasms: For Inflammations of the Uterus there is a greater fever and is attended with Sickness, which last does not attend other pains, unless they have had sickness during the Labour pains & then it may attend other pains; Also Inflammations of the Uterus is attended with Quick pulse, great Thirst, Restlessness & sometimes a paucity of the Lochia I say sometimes as it is far from being a constant attendant on them.

Causes. It may be owing to some External Injury; what I call External Injuries are when the Child's head remains long in the passage & the pains very strong so that some of the Parts are much hurt in the Delivery: Too much force being used in the use of the forceps. A person being too Rash in turning the Child, One using too much force in extracting the Placenta & thereby do violence to the Uterus. It may be also owing to a too violent contraction of the Uterus after its contents are expelled; also it may be owing to an Alteration of Determination, as from the Breasts to the Uterus.

The

The Inflammation of the Uterus terminates like all other Inflammations either by Resolution, Suppuration or Gangrene. It often terminates by Resolution & we do not know of it, for it often happens that there are slight Inflammations of the Uterus yet by the Discharge that happens at that time it is carried off. & here the symptoms are so very mild that you do not know that there is any Inflammation. It also often terminates in Suppuration & here the Disease is always tedious for they will have a fever on them for three or four Months attended with a constant pain in the region of the Uterus & Grain & then an abscess will form about that Region of the Uterus & will discharge a great quantity of Matter; thus when you find the pulse frequent for some Weeks & attended with pain in the Region of the Uterus & can ascribe no Cause for this you may be sure that an Abscess will be formed about the region of the Uterus which will relieve the Woman; sometimes the Abscess forms on parts of the body which has no connection with the Uterus as on the Legs, thighs &c. we see the same happen from bruising the Tendon in blood-letting that the Tumor



is not confined to the wounded part, but tumours will appear in various parts of the body. I have had many Cases of Inflammations of the Uterus terminating in this way. Inflammations sometimes terminate in Gangrene. This termination happens to those Women who have suffered great violence in the time of Labour. When Inflammation of the Uterus terminates in mortification it is always mortal, the others remain some time very mild but this always lasts in three or four Days. The Prognosis depends on the violence of the fever & other symptoms, but in general they may be reckoned mortal.

The Cure. The first thing to be done here is Blood-letting. I told you in the former fevers that often there is no occasion for bleeding or at most must be done sparingly on account of the Evacuation that happens but here you should never spare the Lancet when the symptoms require it. Some think that the most proper part to take the Blood from is the Vena Saphena, others again think that it is best from the Arm. It was imagined that Blooding in a part at a Distance from the part affected, made a Revulsion from

from the part affected to the place that was bled  
 so by this way the vessels of the affected part  
 were relieved. This Doctrine is as ancient as  
 Hippocrates or Galen who embraced it & it  
 was embraced generally untill the Circula-  
 tion of the Blood was Discovered & since it  
 was Discovered there are still some who con-  
 tinue that notion & use this Method, but  
 allowing that it was true yet it is ~~any~~ in-  
 convenient, for the vein does not bleed  
 freely & you are obliged to put the feet among  
 warm water & still you cannot get a proper  
 quantity of blood. But again their Doctrine  
 is fallacious for altho a vein is opened the  
 pressure is not removed from it & even  
 tho' you should make twenty Arifices in a  
 vein it will not transmit any more blood  
 than before & also less blood is transmit-  
 ted to the Heart in the time of bleeding than  
<sup>before it</sup> afterwards. E. g. When you are to bleed  
 the Median Cephalic which you'll suppose  
 to transmit two ounces in a minute to  
 the heart, by the Ligature the whole blood  
 in the veins of the Arm below the Ligat-  
 ure is stoppt which you may suppose trans-  
 mitted eight ounces in a minute, when  
 the vein is opened not above three ounces  
 comes

comes away in a Mixture, so here instead of the vessels being more relieved they are more constricted than before; therefore the Arm is more preferable than the foot. By the Linct you diminish only the quantity of the blood, but Topical Bleeding relieves the vessels of the Part to which they are applied. Thus we see a small hemorrhage from the nose will cure a headach when four times the quantity from the Arm will not, & we know that in the Piles that a few Leeches applied to them will have greater effects than four times the quantity taken from the Arm as they relieve the vessels of the part affected.

But in an Inflammation of the Uterus Bleeding in the foot or Jugular is no better than in the Arm indeed the last ought to be preferred.

**Fomentations** This is in two ways either to foment the belly with cloths wrung out of warm water or to put them in the Warm Bath. both which are extremely good; Dr Galeshield found that the warm Bath was not only good in Inflammatory fevers but also in common fevers but it must be heated no more than 98° or 100° in Farenheits Thermometer by which they can remain longer in it. Another way of fomentation is to apply the skins of new killed

Animals



Animals to the belly, & nothing is better than a Lambs skin & in order to get it warm the Animal should be killed in the next Room & the wool should be taken off & as soon as there is as much cut off as to cover the Abdomen should be applied immediately to it, & as it will cool in four hours it should be then renewed.

Camphor. Mr Peuteau had a great opinion of this for in an Infectious fever which raged among young Women at Lyons he found that those who did not use the Camphor Died whereas those who used it recovered & by Dissections of those who Died of this Disease the Bowels were much inflamed, & Mr Peuteau laid the whole stress of the cure on the Camphor but he changed his opinion some time afterwards, for in a fever which raged in the same manner, he found no advantage from it. Indeed it labours under several Disadvantages for at this time the Stomachs of Women are very Delicate & as it is a Nauseous Medicine it is bad to take & when swallowed it disagrees with their Stomachs unless it be given in a solid form, also I have tried it frequently & never found any service from it & if it is given in a large Dose it may do mischief.

Nitre. Hofman recommended this Medicine greatly, it is a cooling Medicine & if given

given in a sufficient quantity it keeps the belly open which is of great consequence here Barb. We find that in all Inflammations from an External Cause the Barb. is useful as a Peruvia received on any part of the body tending to Gangrene by the Application of the Barb. internally great service is received. so in this case which often & for the most part arises from an External Injury by giving the Barb. early a mortification may be prevented; but the only objection against this is that as it is an Astringent it may stop the Lochia which would do a great deal of mischief. but this is not the case for I have given it in great quantities in order to stop Immoderate fluxes of the Lochia which did no service & I have given it immediately after Delivery to cure Intermittents & it did not lessen the Discharge in the least. - therefore we may give it freely & there can be no objection.

Injections are proper here to keep the belly open & as their Stomachs cannot bear Camphor you may thro some of it up by these Injections. & also you may throw up Nitre in the same manner, & both these remedies are.

are Usefull here. Likewise these Injections answer as fomentations to the Uterus, & here you should throw a great quantity of the Injection for  $\text{Z}^{\text{III}}$  or  $\text{IV}$  will have little effect. I have been often obliged to throw up three or four Sells pint of Cold water to remove a Costiveness, therefore in order to make it answer the purpose of a fomentation & to open the Belly you should throw up a great quantity of the Injection.

### 3 Fevers attended with Miliary Eruption

The Reason of my taking notice of them is that they are attended with more Danger in consequence of the Eruption. In the year 1552 it raged at Leipzig & cut off a great many & this is the first time that it was ever taken notice off, some years after that it raged in Germany & carried off a great many. There is a Favorable & a Malignant kind of this Disease & in this bears a resemblance to the Small Pox in the Distinct & Confluent Symptoms. There are no Symptoms that can show when the fever first comes on to be this Disease until the Eruption appears & in this resembles the Small Pox where there are no Symptoms that can



can show it to be that Disease in the Eruptive fever until the pustules appear.

The Favorable kind begins with a fever<sup>ch</sup> generally comes on in the 3<sup>d</sup> Day after Delivery & there is no appearance of Milk in the breasts there is a full strong Pulse as is the case in all Eruptive Diseases as in the Small Pox, also there is a considerable degree of Languor & restlessness & they have this to a greater or less degree according to the greatness of the Eruption; then they have an Itchyness on the Breast & neck & then the Eruption appears. The Symptoms of the Eruption of the Malignant are the same with those just now mentioned; the Malignant generally attacks those people whose Constitutions are bad & those who have had frequent feverish fits before &c. After the Eruption has come out if the number small the fever generally goes off; but when the number is great, the fever continues & in this resemble the Distinct & confluent Small Pox. Often where there is a great number they lose their strength all of a sudden. Pulse less full & a loosening comes on which carries them off in a short time. There is not a Disease that

I know of that requires more Watching than this, for it changes so suddenly & it often carries off the Patient in twelve hours. The Miliary Eruption is of two kinds the Red & white. The Red is when small Red pimples appear. The white are like small vesicles filled with a watery matter & resembles somewhat the Itch & this kind is always more Dangerous & is called the Malignant kind.

Prognosis. The Danger is more or less according to the greatness of the Eruption & in this is like the Small Pox for the Distinct is not Dangerous but the Confluent or where the Pustules are run together the Danger is great. The Danger is more or less according to whether or not the symptoms abate after the Eruption & in this is like the small Pox, for in the Distinct the symptoms go off after the Eruption but in the Confluent the symptoms continue. When the Eruption goes out & in, it is always Dangerous, also if the Patient is seized with frequent Cold fits altho the Eruption does not go out & in, yet it is also Dangerous. There is also a Danger if the Lethargy should dry up on the third day as by this the Patient will become more

more feverish & all the Symptoms will be increased. There is always Danger when the Sensorium is affected, or become Delirious, sometimes they are affected with something like a Palsy or having a numbness of the Body & do not see distinctly & <sup>sometimes</sup> a vomiting succeeds without any evident Cause. These are unfavorable Symptoms & are the forerunners of a speedy Death. When you find a Stupor comes on in any considerable Degree you may be sure that your patient will soon die.

Cure. I mentioned before that this Disease has a great resemblance to the small Pox, the Red Miliary Eruption resembles the Distinct & the White the Confluent & like the small Pox our Cure is divided into 2. The management necessary in the Eruptive fever, & the management when the Eruption appears.

1 The management of the Eruptive fever. When the Fever runs high you are often obliged to let blood as in the small Pox as you do not as yet know the Disease & altho' you know the Disease if the Symptoms are violent you can take some blood. for it does not prevent the Eruption from <sup>going</sup>



going out, but on the contrary forwards it, for by lessening the fever the Eruption comes out sooner; But if the fever does not run high there is no occasion for Bleeding. This is one of the Diseases where the patients are the worst of being kept warm as in the Small Pox & it is common when the patients are kept warm in these Diseases that there is a greater Eruption, however in this Disease you must take care not to expose them to great Cold which will repell the Eruption & do harm, so it is not only unnecessary to keep Warm in this Disease but even pernicious.

2 The Management when the Eruption appears (In the Favorable). When it comes out it generally continues 6 or 7 Days, & as all the symptoms are gone off there is nothing to be done here, & in six Days the Eruption will come off in small Scurfs.

2 In the Malignant. This is the same as in the Confluent Small Pox for after the Eruption comes out the fever still continues & sometimes it happens that the Eruptive fever is not so high in the bad kind as in the good kind, & in the bad kind it continues after the Eruption is out. At this time gentle Purgatives are proper & we find that they

They are of great service when the fever remains after the Eruption of the Confluent Small Pox as is practised by Dr Dimsdale &c.

They should avoid all Animal food & to use a Vegetable Diet as in this case there is a tendency to Putrescency & if they cannot use Vegetables freely it will be necessary to throw up quantities of Vegetable matters by injections.

*Bark* This is very proper here as it is in the Confluent Small Pox, sometimes they cannot use it as it does not agree with their Stomachs & is Nauseous, if this is the case it ought to be given in Injections & in a Solid form v. e. made in a fine powder & mixed with any vegetable Decoction as a Decoction of Chamomile flowers & to be thrown up in this way, but for this purpose a larger pipe is necessary than common, & the Rectum like the Urethra will admit a large pipe with as much ease as a small one & rather with greater ease for when small you are ready to push it against the side of the Rectum & thereby hurt the patient.

When the Eruption comes out slowly & the fever still continues Blisters is a good remedy to promote the Eruption here

so you can apply a blister to the back & also you can give gentle Purgatives and Injections of Vegetable substances with the addition of some Drops of Laudanum in order to make them be retained the longer, which methods will forward the Eruption.

When this Disease raged at Strasburg a Woman was held in great reputation for curing it & her method was she gave Injections of Cold water with a little Butter & salt added to it & gave them both drink made of Water with a little wine, Lemon juice & Sugar & by this method she cured a great number. As this Disease has such a great resemblance to the confluent Small Pox the method of Cure differs in no respect from it.

There are other Diseases which do not belong properly to Lying-in Women - but in consequence of Delivery they are rendered more liable to them & therefore I shall say somewhat of them.

Of this class of Diseases is the Prolapsus Uteri, or Falling down of the Womb. Every Woman is liable to this Disease, Virgins as



as well as married Women, but Women in-  
(consequence of Delivery are more liable to this  
Disease than those who never had any children  
There are two species of this Disease vizt the  
Incomplete & the Complete. The Incomplete  
is where the Orifice of the Womb comes to the  
Os Exterium & the Complete is where the body  
of the Uterus is without the Os Exterium al-  
together. Many Authors have asserted that  
the Complete never happens, but you'll find  
that Savard mentions one case of it & Mr  
Ruyssch mentions three Instances of it, but  
I believe that the Complete seldom happens.  
The Prolapsus Uteri has a Different figure  
in Different Women & differs in figure ac-  
cording as it is without or within the  
External Orifice. The way you distinguish  
this Disease from others as Polypus is, that  
in this you will feel distinctly the Orifice of  
the womb which you cannot do in others  
& this likewise Distinguishes it from an  
Inversion of the Womb where the bottom  
of the Womb falls thro' the mouth of it, for  
here there is no orifice either to be seen  
or felt, it also happens all at once & must  
be relieved as Instantaneously for by  
the mouth of the Womb contracting on the

the body the circulation will be stop'd & a mortification will soon come on so as an Inversion of the Uterus the Cure must be immediate or a strangulation will ensue Causes. This is owing to any thing that relaxes the Vagina or Ligaments of the Womb too much such as by Immoderate fluxes of the Menses, Fluxus Albus &c Reduction. It is very easy to reduce the Uterus but it is not so easy to keep it in the proper position when once it is reduced. — sometimes it is so very painful the reduction of it that she can hardly bear it by the order: — ingher to keep her bed for 24 hours & use Bleeding & fomentations the Reduction will be very easy & this method should always be practised before the Reduction. — Before you Reduce it you should observe whether or not any part of the Womb is Ulcerated as often happens when the Womb has been down for some time; if there is any Ulceration you must Cure it before you reduce it. For the Reduction you must lay the Woman in the same position as if you was to use the forceps & then you reduce it with two fingers & a thumb of one hand or as some do with the fore — fingers

fingers of both hands, & this is easily done, but something is required to keep it in its place when Reduced & prevent it from coming down again & these Instruments are called *Peseries*. These are made of various substances & are of Different shapes I shall go over each of these. The Substances of which *Peseries* are formed. Now the great Consideration of *Peseries* is to get them so as to enter with ease but to be withdrawn with Difficulty & altho this at first sight would be thought to be easily accomplished yet it is a Difficult Matter. With this view when the *Protopisus* is incomplete, *Peseries* made of *Sponge* have been used, which is a soft substance & will not give them any pain & when introduced will absorb the Liquors there which will make it swell & thereby come out with greater difficulty; but it will not answer if the *Uterus* has been long down & so requires some force to keep it up, as the *Sponge* does not give great Resistance; Likewise as it absorbs the Liquors, if they remain long in the *Sponge* & in that Degree of heat they will become Acid & hurt the parts so this kind of *Peserie* must be taken out every day & washed & before you introduce it \* you may throw up some Liquor which it will absorb & it



it you may dip it in some Astringent Liquor  
 this kind of Pessurie may answer very  
 well which no great resistance is required  
 to keep up the Womb & as it often has not  
 Resistance sufficient to keep it up Pessuries  
 have therefore been made of Cork, but this is  
 liable to the same objection as with the Sponge  
 for it will absorb the Liquors which will be-  
 come Acid & hurt the parts, to remedy this  
 it has been dipped in Wax which will make  
 it firm, but yet in a short time the Wax will  
 absorb the Liquors & pieces of the Wax may  
 break off & then the Cork is exposed to the  
 Liquors & will absorb them. So Cork Pessa-  
 ries are inconvenient; to remedy this they  
 have been made of the different kinds of me-  
 tals, but they are inconvenient by their  
 great weight either to fall out or pain the  
 Patient greatly. Likewise the Liquors of the  
 Vagina will corrode & rust them which  
 will hurt the parts & therefore Pessuries  
 have been made of Wood, if the Wood is solid  
 it will answer very well for when it is soft  
 it will absorb the Liquors, which will be-  
 come Acid & hurt the parts. Sometimes  
 they are made of Iron which will an-  
 swer the best of any as it is a smooth, light  
 & compact substance & will not absorb Liquors.

The

The Figures of Pessaries. These are very various. They have been made in the form of an Egg which you introduce long ways & when introduced you turn it across & so answer the Disideratum by going in easily but coming out with Difficulty; but this shape is not so proper for if the Woman walks about a little while, the pessary will shift about till it comes into the same Direction in which you introduced it & will come out with as much ease as it was introduced. Dr Simpson of St Andrews contriv'd one but it does not at all answer the purpose. Some are fix'd by strings as the one which has a Ball & socket, but these are inconvenient for if the Person is Carefulent & in the Summer these strings will gall them & altho they are easy enough when standing yet when sitting the latter extremity may hurt the Orifice of the Vagina; it is convenient on account of the person adapting it herself which cannot be done with the others as they require a person of Skill, yet this is not adequate to the Inconveniences & therefore this should be laid aside. The next form is the Round. Some are circular with a small hole in the middle to allow matters to pass from the Womb as the Menstrual Discharge, but the larger this opening is so much the better.

better as it makes it much lighter & thereby easier to walk with & less apt to come out. I said the reason for making the hole in the middle of the pessaries was to allow menses to pass from the Womb as then they kept it perpendicularly up from the Os Sacrigis to Os Pubis but in this way it is very difficult for the person to walk or sit, but notwithstanding of that it is bad for the pessary is only within the orifice of the Vagina & the Uterus will fall upon the Pessary & is thereby still out of its place being still almost at the orifice of the Vagina; but the best way is when introduced to press down the upper edge & lay the pessary flat, in this way you will keep the Uterus the length of the Diameter of the pessary from the orifice of the Vagina which will be between two & three Inches & in this way the Uterus will be kept in its proper place.

There is no Difficulty in introducing the Pessary but you must have it of such a size as to occasion a stretching of the Perinaeum to introduce it; you introduce it edge ways & when introduced you carry that edge of it which is next the Os Pubis down so that it may be supported side ways



ways & press it to the back parts, for if it was close to the upper parts it may hurt the Uterus, in this way you will keep the Uterus two or three Inches from the Orifice of the Vagina & they may walk about or sit with it without any uneasiness & if you allow it to remain some time you will never fail of curing the Disease, for there is not a Disease that we are more certain of a cure than this; if upon any effort being made the Pessurie comes out, you must introduce a larger one. In every person you should withdraw the Pessurie every six months & wash the parts with Milk & water by means of a Bag & pipe & then again introduce it. — There are instances of Women carrying Pessuries in this way five or six years & there is one instance of a Woman carrying a Pessurie for Twenty Years.

## Moles or False Conceptions

This is a general Term & is applied to any thing that is contained in the Uterus unless the Child. These Moles are of two kinds either loose & not attached to the Uterus or adhering to it. Those that are not attached to the Uterus come away in a few months but those which adhere to the Uterus may remain there many Years. The Moles that do not adhere to

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to the Uterus may be owing to a quantity of  
Blood being coagulated in the Uterus & by  
remaining there takes on a fibrous Texture  
& we find that Moles are most Subject to  
those whose menses are about to leave them  
& to those who have great flowings of the  
menses. I told you before that when the  
menses are about to leave Women that they  
are obstructed for two or three periods  
& then have a violent flowing the next  
& are obstructed again which is succeeded  
by another violent flowing & are in this  
way for three or four times. so if some  
coagulated Blood remains in the Uterus  
after the first flowing & if it comes away  
in any of the succeeding flowings they will  
think that they have aborted especially as they  
had been obstructed & the mass taken on a  
fibrous Texture; the Blood is coagulated  
by remaining in the Uterus & by the com-  
pression of the Uterus it takes on this fi-  
brous appearance; in confirmation of this  
if you put some Blood in the same Temper-  
ature with the Uterus (especially very  
Blood) & expose it to the same compression  
as it undergoes in the Uterus it will become  
of a fibrous Texture, & you'll find no Blood  
resembl

vessels which you always do in those which adhere to the Uterus or where the True Conception turns into a false one. Moles are sometimes owing to the Woman conceiving but at the second month the Child escapes unperceived & the placenta remains which by blood always adhering to it & coagulating will form a large mass which has no resemblance to a placenta but upon being cut you'll perceive blood vessels.

So the Moles may be owing to two Causes either blood coagulating in the Uterus & taking on a fibrous Texture or to the Woman conceiving but the Child escaping the Placenta remains & by blood coagulating around it forms a large fibrous mass.

It is not so easy to account for those that adhere to the Uterus, but they are sometimes owing to the same Cause that repairs any lost part of the Body; it is very difficult to account for the reparation of a lost part thus when a bone is broke, there is a fluid matter poured out from the Extremities of the broken bone which at last becomes hard & of the same nature with bone; & when a Tendon is broke it was formerly the custom to sew it together but we now see that it is  
necessity



needles for altho the broken Extremities should  
 be one inch separated yet we find that they  
 pour out a liquor which hardens & becomes  
 of the same nature with Tendons & unites  
 the two broken Extremities together. Also  
 when a wound is made in a Muscular  
 part there is poured out a matter from the  
 Extremities of the vessels which becomes  
 hard & of the same nature with a muscle;  
 so the reparation is not owing to a prolon-  
 gation of the broken fibres but the vessels  
 pour out a liquor of the consistence of a  
 jelly which becomes at last of the same  
 substance of the part which the vessels  
 belonged to which poured out the liquor.  
 If you take the Assistance of a Glass to ex-  
 -amine a Wound you'll perceive a viscu-  
 -lar substance first poured out, which  
 becomes always firmer untill at last it  
 becomes of the same nature with the part  
 that was wounded. It would seem very  
 strange that a Liquid should thus become  
 a Solid, but we see many Examples of this in  
 Nature, thus the white of an Egg which is  
 a Transparent Liquor will form all the solid  
 parts of the Animal & altho it is a homoge-  
 -neous fluid, it will form parts of different  
 Solidity & Texture as the Bones, Cartilages,  
 Tendons

Tendons, Ligaments &c likewise in the Embryo there is nothing to be seen at first but a kind of Lymph contained in a Bag yet it becomes harder to the Consistence of Brain, so when a part is hurt the fluids that issues from it form the same substance with the hurt part I do not mean to say that when my finger is pricked with a pin that the Blood which Issues from <sup>it</sup> will harden on my finger & form the muscular part any more than it will do when it falls to the Ground, but that portion of fluids which coagulate in the mouths of the vessels that are wounded, form the substance & fills up the vacuity - hence you see the hurt of keeping wounds too clean, for by washing away that Liquor which is poured out the wound is prevented from healing. In the same way Polypus may be formed the first layer of the Polypus <sup>may be growing</sup> to some vessel in the cellular membrane or when being burst which pours out a fluid that hardens & we find that the Skin or dead Skin pours out a Liquor which sometimes forms a horny substance & in the same way the Cystic Tumors may be formed or when a Lymphatic vessel bursts off,

if it is large there will be a great flow of a  
 Lymphatic Liquor, but if small the Liquor  
 will run slowly & will harden & form  
 Tumors; & we find that in Spittings of  
 Blood, fleshy substances will be formed.  
 I knew a Gentleman who had a violent  
 spilling of Blood, which after it stopped  
 he was seized with an incessant cough-  
 ing, all Pectorals were used without re-  
 lief at last he caught up a large piece  
 of fleshy substance & then the Cough im-  
 mediately left him; this substance had  
 been formed by the Blood coagulating  
 in the mouths of the ruptured vessels  
 which had stopped the hemorrhage, but  
 by the substance irritating the Lungs  
 a violent cough was produced which  
 continued until such time as it was  
 expelled. So I consider Moles that ad-  
 here to the Uterus may be formed in  
 much the same way.

Sometimes it is difficult to know when  
 a woman has actually conceived or  
 has a false Conception, but may be  
 known by every thing being regular  
 in a Woman that conceives from the  
 beginning to End whereas in a false  
 Conception



conception every thing is irregular. I shall  
 show the Difference by a Case of a false con-  
 ception which I had about three weeks ago.  
 A Lady about seven months ago (had been  
 obstructed a period or two & thought she  
 had conceived as she was becoming a  
 little bulky) was seized with a flooding  
 & nothing like the Child came away, as  
 the flooding was very gentle she was ad-  
 vised to use gentle Exercise & for this pur-  
 pose took a journey to England, her flood-  
 ing left her when she returned I saw her  
 she told me that she has always a showing  
 of her Menses, which I have told you was  
 there sign that she was not with Child  
 as I never knew an Instance of a wo-  
 man having her menses regularly  
 to the seventh month & to be with Child  
 as was the Case with this Lady, she was  
 bulky but not so bulky as she should  
 have been, being now she thought about  
 the seventh month & altho' so far advanced  
 she had never felt any motion of the Child  
 All these symptoms plainly determined  
 me to tell her that she was not with Child.  
 About three weeks ago I was called to  
 her, & was by her redrawing now come  
 to the full time, she was seized with a  
 flooding

when I saw her I did put her to the External  
 Touch & found she had only the bulk of a  
 Woman four months gone with Child. I then  
 Introduced my finger into the vagina &  
 found the mouth of the Womb dilated about  
 the bigness of half a crown, but felt nothing  
 I was now sure that she had no Child abt  
 behooved to have been Dead for some time  
 & the flowing from the Uterus was not pu-  
 =rid, which would have been the case if the  
 Child had been Dead: in order to abate the flood-  
 =ing I gave her gr̃s of Opium by which she  
 slept well & was easier all next day, but  
 at night was seized with pains like the  
 Labour pains, upon introducing my fin-  
 =ger into the Vagina I felt a large soft ob-  
 =stance at the mouth of the womb, I knew  
 immediately what it was, I laid hold of  
 it with my hand & as it was soft & tender  
 I got only about the half of it away &  
 her pains eased, but in a short time they  
 returned & became stronger than ever  
 after they had continued sometime (for  
 you should not be in a hurry here but  
 allow time for the Uterus to push it  
 on the passage) I introduced again my  
 hand into the Vagina & brought the whole  
 away

away, by the structure I imagined that this Lady had conceived but the Child had escaped & the placenta remaining & the blood coagulating around it had formed this substance, it was full of small Hydatids joined slightly together & was thereby very tender.

The swelling of the belly is a <sup>sure sign</sup> method that you will find always to Distinguish a person to be with Child or not, in most of women about the 6<sup>th</sup> month of pregnancy the Womb reaches half way between the Os Pubis & Navel, in the 7<sup>th</sup> month reaches the navel, in the 8<sup>th</sup> half way between the Scrobiculum Cordis & Navel, in the 9<sup>th</sup> it reaches the Scrobiculum Cordis, but when there is a false conception about the 8<sup>th</sup> month instead of the womb reaching above the navel, it is perhaps only a very little above the Os Pubis. I have been often surprised that so great a bulk should be occasioned by so trifling a substance, for these Moles altho often very small will occasion a pretty considerable Bulk; & sometimes a great Bulk is occasioned with-  
~~out~~ there being any thing contained in the Womb which will make her think that she



she is with Child, but it will go away suddenly & without any Evacuation, So when you find that the Bulk does not correspond with the time you may be certain that she is not pregnant. The motion of the Child will show whether it is a false or True conception; but Women who have had Children are liable to mistakes here & far more those who never had any, for when the woman makes great motion the Mole may be moved a little in the womb & thereby cause a mistake, but when the Mole is moved in the Womb, it gives the sensation of a Dull Heavy motion whereas of a Child it is very quick & lively so this makes an evident Distinction, but when a Woman has that Dull heavy motion, she aggravates it in her Imagination & she'll think it the motion of a Child.

The Extraction of the Moles. Never attempt anything till nature points out the time & nature points out the time by two ways either the person being seized with a flooding & the mouth of the womb Dilated or by her having Labour pains. Remedies have been said to have the effect of expelling the Moles, which I do not think to be true & in the Lady whose Case I related nothing  
alas

was given her; but when the mouth of the womb was Dilated I introduced my hand up the Vagina & Extracted it.

I have often seen Women who were bulky & thought themselves with Child void great quantities of matter such as is contained in Strumatous Tumors, or great quantities of small Hydatids, which was owing to the Mole being Resolved, & then the swelling of their Belly subsided.

When the mole is fixed to the Uterus, these of the same nature with Polypie & are to be extracted in the way mentioned before, but no Ligature can be put about them unless the Tumor is without the mouth of the Uterus.

There have been many Instruments contrived to bring away the Mole, but the best one is that kind of forceps used for the extracting of the Placenta, but what is better still is the Hand, which you can introduce with a little pain to the Patient & you can take a better hold with your hand than with any Instrument.

This finishes the Consideration of the Diseases of Lying-in Women & those that Women are liable to in consequence of Delivery. I shall now consider The

## The Diseases of Children

Before we enter on the Diseases of Children it will be proper to show the method of Treating them when nothing Extraordinary happens. Children undergo very great Changes by Delivery; it undergoes a Change as to the Temperature, being formerly in a place about  $96^{\circ}$  of Fahrenheit & is removed to a place which at most is  $50^{\circ}$ . Another great Change is Respiration taking place. No Animal respire in the Womb but they all respire soon after Birth. in the Philosophical Transactions you will see Cases of Children Crying in the Womb but I suppose this is only imaginary & may be taken from analogy as <sup>Animals</sup> chiparous will sometimes cheep in the shell, but this may be easily accounted for. In the Egg there is an Air Chamber separated from the rest of the Egg by a membrane & the longer that the Egg is covered by the bird the Air Chamber becomes larger, & by this we know whether an Egg is fresh or not for if you look thro' it & find the Air Chamber large you are sure that the Egg is not fresh so when the Animal breaks thro' the membrane it gets some Air by which it can breathe for some time &c



And this way may cheep, but as every Animal must have a fresh supply of Air, so when the Air in the Chamber is mostly exhausted the Chick breaks thro' the shell by degrees & at last comes out, & in the Incubated Egg there is always an Evaporation from the Egg which is of the greatest moment to the life of the Chick for if the pores of the Egg is shut up by any substance as Butter, meal &c. no chick will be formed in it & if the Egg had been covered some time & the Chick formed if it is then rubbed over with Butter the Chick will Die. so you perceive that the Chick may breathe in the Egg but this is not the Case with an Animal in the Womb, for the Air cannot get access to it being surrounded close with thick membranes.

It is very difficult to account for the Cause of the first inspiration & if we knew the Cause of the first Inspiration we may easily account for its continuance or Respiration. Dr Pileain thought that the cause of the first Inspiration was owing to the Air rushing into the Lungs as into a Vacuum but this is not the Case for no Air goes into the Lungs of still born Animals, in like manner when a pair of Bellows is laid on a Table, no air will rush in to blow them up, but when you

you raise up one of the Breasts the Air will rush  
 in & distend them, so the same happens here, the  
 intercostal muscles must contract which pull  
 the Ribs upwards & outwards, by which the ca-  
 vity of the Thorax is enlarged & a vacuum is  
 formed so the Air rushes into the Lungs, there-  
 fore to account for the first Inspiration we  
 must account for the Cause of the contraction  
 of the Intercostal muscles. Worrell & Boerhaave  
 thought that it was owing to the Difficulty of  
 the Birth that inspiration was performed, but  
 in this way those who are long in the Birth  
 will breathe sooner than those who are easy  
 in the Birth, but we find this not to be the  
 Case, for those long in the Birth either never  
 breathe any or are very long in breathing  
 whereas those who are easy in the Birth breathe  
 very soon. Dr Whist & others imagined that they  
 had a propensity <sup>or appetite</sup> for breathing, for by the stop-  
 ple in the Birth the blood was propelled in  
 greater quantity to the Lungs which stimu-  
 lated them, & so produced the first Inspiration  
 but this is much the same with Worrell or  
 Boerhaave & what was said against their  
 opinion will answer here. Therefore we can-  
 not account for the Cause of the first Inspiration.  
 As soon as the Child is Born & breathes no  
 blood goes by the Umbilical Arteries, they  
 become Ligaments & hence more blood is  
 contained

contained in the Aorta Descendens by which the  
 Lower Extremities & neighbouring parts receive  
 more blood than formerly, no blood goes now  
 by the Umbilical vein which also becomes a  
 Ligament, the Canalis Arteriosus & Venosus  
 likewise soon shut up & I have observed  
 that they are shut up in a Puppy twenty four  
 hours after Birth, & the foramen Ovale is shut  
 up some time after Birth. I say some time  
 for altho it is generally shut up in a short time  
 after Birth yet there are Instances of persons  
 of ten, twelve nay Sixty or Seventy years of  
 Age having the foramen Ovale quite open.  
 Dr Harvey makes it a problem how happens  
 it when a Child is in its membranes, it may  
 remain some hours & yet be alive, but when  
 the Child has once breathed it cannot live  
 a minute without being exposed to the Air?  
 Indeed we have Instances of Children after  
 Birth if enclosed in its membranes may  
 live several hours without breathing as  
 in Boerhaaves Institutions, where he men-  
 tions the story of a Woman who was Delivered  
 of a Child enclosed in its membranes she  
 thought it was Dead & buried it; when some  
 of her neighbours heard it, they dug it up to  
 satisfy their Curiosity & found the Child alive  
 altho it had been buried five hours; but  
 Nonn & Puffon & some others deny the last part  
 of Dr Harvey's problem, they <sup>say</sup> that Animals  
 altho



altho they have breathed for some time yet may live when excluded from the Air, & to show this Monfr. Kuffon tied a Kitch going to puppies in such a manner that when the puppies were whelped they fell among a vessel full of water; when the puppies had remained some time among the water they were taken out & found to be alive, & after they had breathed some time if they were again thrown among the water & allowed to remain some time they were found alive when taken out.

The first thing to be done when Delivered is to Clean the Child, the skin is commonly covered over with a thick mucus which adheres very closely to it, some have imagined that it is the Sediment of the waters which form this mucus; The way you clean it is, if the mucus is very thick & adheres very close you should rub on a little Butter or Pomatum which softens it & then wash the Child with milk & water or Soap & Water; it is a very common practice to wash the Child with Spirits in order to make it less susceptible of Cold & especially they wash the head with it as they think that it forwards the Ossification but this depends on the Thriving of the Child <sup>and</sup> for the Spirits can be of no service there in

in promoting the Ossification, & if the Child is washed with Spirits after the first wash the vessels of the skin will absorb it & so every time it is done you are giving the Child a large Dram, which may not be the case the first time as the pores may be stop't with the mucus. The next to be considered is the Cloathing. This has been much neglected by Physicians & being left to the Nurses & old women, but this is a very material circumstance. There are two properties which they should be possessed of.

- 1 They should be as simple as possible.
- 2 They should <sup>be</sup> such as to keep the Child sufficiently warm.

1 They should be as simple as possible. Formerly they Dressed them so Complexly as that it would require half an hour to dress or undress them, which fatigues the Child & by which they may catch cold, therefore the simpler the Dress is so much the better, they are still not simple enough in the Dress they will have half a Dozen of different Capses on the head, tied separately, if they could make them to be altogether it would be much better & the sooner you can dress the Head the better it should be the first part dressed as it is most susceptible of cold. The Shirts & waist-coats are often too light so that it takes some time

time before they can be put on & the Child may be hurt by putting them on.

2 They should be possessed of a proper degree of Warmth. However hardly you intend to bring up your Children you should after Birth keep them always warm with Cloaths, & to keep the Child in a warm Room with light thin cloaths does not do so well for immediately when the Child is taken out of the room it will catch cold; so Children should have thick warm Cloathing. I imagine that most of the Animals in the Northern Climates would Die, if Instinct did not teach them to keep their young warm & you'll often observe that in Cold weather the Sheep always lies before the Lamb to protect it from the Cold, & to defend them from the cold they have also a thick woolly covering. But this is more remarkable in the Birds than when any are to build a nest as then they can: not stay away three or four hours to seek food as usual, they therefore build their nests as near to a part where they can get food as is consistent for their own safety, in order that they may sit the longer on their young. Likewise you observe that a Hen sits constantly on a Chick for the first eight or ten Days & if they go away from her any time they will be almost Dead with the Cold. This is most observable if you hatch them with



with Artificial heat which I have done, I  
 had a small apartment lined with furs & un-  
 der it a Lamp, which kept it from 96° to 100°  
 degrees of Fahrenheit in Temperature this may  
 be called their Bed Chamber, there was a large  
 apartment of this which was of the same  
 Temperature with the Atmosphere & this may  
 be called the Dining Room, I found that  
 when any of the Chicks went into the Dining  
 Room & could not find their way back into  
 the Bed Chamber that in a short time I found  
 them quite motionless, & if I put them into  
 the Bed Chamber in a short time they were  
 as lively as ever. Likewise you find the  
 same to be the case with young children  
 they are commonly put into a Cradle till the  
 Nurse arrives & if the Cradle is at a distance  
 from the fire the Child is always crying but  
 if you put it near the fire or lay it beside  
 the Mother, it is quite easy & crys none.  
 The putting the Child in a separate Bed from  
 the Nurse is often practised for fear of her  
 overlaying the Child, but by itself it can-  
 not retain its heat & becomes cold & I am  
 of Opinion that if twenty Children were laid  
 in a Bed separately & twenty to be with  
 their Nurses there will be more of the Child  
 men dead at a years end of those who lay  
 separately

separately than those who lay with their Nurse as the Gold would kill the Delicate Children, whereas if taken proper Care of may become a stout Adult. We are intended by nature for sudden transitions from heat to Cold, but this must be brought about by Degrees & it will require sometime for this. Thus an Adult can live in a heat of  $96^{\circ}$  & also in a Degree much below frost or  $32^{\circ}$ , but then he acquires this by degrees. We can also live in great Variations of the Atmosphere; we can live on the Top of a hill & in the bottom of a mine & the weight of the Atmosphere in the last is reckoned to be 32000 Lb weight whereas on the Top of a hill it may not be 16000 Lb weight so there is no less than 16000 Lb weight a difference which is a great deal, but to expose a Child to these sudden Transitions would kill it.

The next thing done to a Child is purging it. It has been a Custom to Purge new born Children to expell the Meconium & it have been thought that the milk that first comes into the Breasts of Women after Delivery is more purgative than afterwards but I am inclined to believe that it is less so than afterwards, for the milk of an Animal newly Delivered has more of an Animal nature

Nature, for it coagulates by heat like Serum-  
 or the white of an Egg, & in a small degree of heat  
 if allowed to stand some time it becomes putrid  
 like the white of an Egg, but after a week the  
 Milk will not coagulate by heat, nor will  
 become Putrid by a small degree of heat &  
 Stagnation but will go on to the Acetous fer-  
 mentation; therefore the Milk after Delivery  
 is much of an Animal Nature & will not  
 prove purgative but about a week after  
 Delivery it is much of a Vegetable nature  
 & hence more purgative. The reason why  
 every Animal after birth purges freely is  
 the Intestines are full of the Meconium or  
 thin stuff which has been collected all the  
 time of the Pregnancy & by the Respiration  
 or the pressure on the Abdominal Viscera  
 is greater as the Pressure of the Dia-  
 phragm & Abdominal viscera, hence a  
 purging will be induced. The reason why  
 Purgatives is given is to carry off the Me-  
 conium which they think has become Acid  
 & will hurt the Child, but it is not acid,  
 for it has remained a long time already  
 in its Intestines & has produced no bad  
 effect, & if purgatives were necessary  
 here Nature would make provision  
 for it, but we see that Nature has not  
 made



made provision for this in other Animals w<sup>ch</sup> she would have done had it been necessary. The reason why the first milk after delivery is more of an Animal nature than after w<sup>ch</sup> is that the Child has been all along nourished with a substance resembling the white of an Egg & as a sudden transition from this animal liquor to a vegetable may do harm to the Child, the milk therefore is more of the Animal & becomes by degrees to be more of the vegetable nature. What shows that the Purging at this time is natural, is, that Medicines are given to purge the Child which have not the least effects as a purgative, thus the Syrup of Violets is commonly given which is not in the least a purgative.

As soon as the Child has any desire for food & as soon as the mother has milk the Child should be applied to the Breast; sometimes when they are applied they will not suck being very sick & they will not be easy till they throw up & the common People sometimes gives the Child a little salt among water which makes it throw up & immediately the Child is perfectly well, & this is not a bad remedy.

Choosing

Choosing a Nurse. As every Woman is not fit to be a Nurse you will be often employ'd to seek out one & therefore it is necessary to give some Directions about the Election of a Nurse).

In the first place the Woman should have nursed before, for altho a woman has the appearance of being a good nurse, yet if she has not nursed before she may prove a bad one as she may alter soon perhaps the fifth or sixth month, & on that account are not liked so well here, also she may be very sleepy so that when she lies down in Bed she'll never awake till the morning, but a nurse should be wakier if so as to be awaked by the least noise of the Child & this is only to be acquired by practice. You should also enquire into the Character of the Woman, as a woman may make a good nurse but may have some Drawbacks which will make it inconvenient to bring her into a Gentlemans house. A Nurse should be quite healthfull & have no Disease either hereditary or Acquired as Scrophula &c. A Nurse should not be too young or too Old. some have limited it between 25 and 35 but a Woman any time between 20 & 35 will answer well enough for a nurse as to age. A Nurse should have exceeding good Breasts & good Nipples

Nipples for sometimes altho' a woman has good Breasts yet her Nipples are so small that the Child will not be able to take hold of them. the milk should flow easily out of the Breasts & for to know this you should make her milk her Breasts before you; but sometimes the milk will not come away easily & yet she has plenty of it, but this will happen if the Child has sucked her a little before.

With regard to the goodness or badness of the Milk this is Difficult to ascertain for there is no Standard of good milk & the only way of knowing it is by the Child thriving well & we know that if a woman is able to take meat altho' she labours under Diseases yet she will have milk & the Child will thrive. The Milk is liable to many Changes so that you cannot judge upon sight whether good or bad in the same person it will be sometimes thick & sometimes thin & it even differs in thickness at the same milking, for if you fill two Glasses one after another you'll find the first to be thinner than the other, & tried this on a Cow which gives 8 English pints at a time, four pints were milked in one vessel & the other four in another & after standing till they cast up the Cream & put the Cream of that which was milked first, put  
\* but if she cannot take meat, there will be a scarcity of milk & what is of it will be bad, it will have a disagreeable smell & taste & will have much of an animal nature. —



and a Churn & made it into Butter & I got half an Ounce  
of Butter; I put the Cream of that which was last  
milked & got four Ounces of Butter from it.

You see how great a Difference there is between  
milk taken at the same how much more will  
the difference be when taken at different times  
or in Different persons.

No Woman should have her Menses when nursing  
but this depends much on the Constitution of the  
Woman & the Diet she is kept on, for if she is of  
a Plethoric habit & is put on a full Diet she may  
have her Menses, but if <sup>one</sup> moderate Diet they  
never have their Menses; if the Menstrual flux  
should come on owing to this Cause she may  
still make a good Nurse, & it is never minded  
in many Countries but they have an aversion  
to them in this Country & therefore when this  
happens you should change the Nurse; but  
there are some Circumstances to be remember-  
ed here, if the Menses happen after the eighth or  
ninth month from Delivery you are sure that  
Nature intends another way of Evacuation than  
by the Breast, so that after this the milk will be  
scarce & not so good, so here if the Child is too  
young for Weaning you must change the  
Nurse but if near the proper Age it will be  
best to Wean it; But if a Woman should  
after a few months after Delivery, you  
are sure that it is not owing to the last Cause  
but

but to the woman being of a Plethoric disposition & kept on a full Diet, she will still make a good nurse, but as the people in this Country have an aversion to them for your own safety you'll better advise them to change the Nurse for if the Child is seized with any Disease as the Scrophula ten years after it will be imputed to the Child being nursed by that woman.

I have not as yet said whether the Mother or another person makes the best nurse, as a Mother always makes the best nurse, but as those among the better sort of people are not robust & cannot want a nights rest without being much fatigued & thereby the milk will be in less quantity & as the Anxiety of a Nurse is never so great as that of a Mother if the Child is in the least indisposed, if the Mother is the Nurse the milk will be much altered; indeed there are many Arguments for & against the Mother nursing the Child but if the Mother is very Delicate it will be best to get a Nurse, but otherwise the best nurse is the Mother.

Nurses Diet. You ought not to make too sudden a change on the Diet of the Nurse, for very often they have a low Diet before they are brought into the house, & if then put on a full diet & by having more ease, as formerly she

she would be obliged to go about her family affairs besides taking care of the Child. but now she has only the Child to take care of. by this method she will have less milk & will not make so proper a nurse; but if she had a good Diet before she came into the house you need make little Alteration on her Diet; but the more you keep her on a Vegetable Diet the better, for by Animal food the milk is neither so good nor in so great quantity; There are few animals who can live entirely on either an Animal or Vegetable Diet but there are some, which by living entirely on Animal or Vegetable food the milk becomes quite Different; I tried this on a Bitch who can live entirely on either Animal or vegetable food, when I kept her entirely on Vegetables I found she had a great quantity of milk which had a good Taste & color; but when I kept her entirely on Animal food, the milk was not in so great a quantity, it had a disagreeable Taste & when I put among it a few drops of an Infusion of any of the Vegetable colors as the Gilliflower, it tinged it of a green color which showed that it was of an Alkaliescent Animal nature. Therefore I would keep nurses as much as possible on vegetable food & those who have been accustomed to live on Animal food I would take so much from them & substitute Vegetables in its place. *JA*



It is necessary to know when a Child is to enter upon the milk, but this is sometimes sooner or later according to Circumstances Mr Cadogan in his small Treatise on Nursing recommends the Child to be put on the Breast four hours after Delivery, but this will not always do for often there is no milk in the Breasts at that time & sometimes there is none for 24 hours after Delivery. Mr ..... says that the Child should not be put on the Breast till the Mother's concern is purged off, but this sometimes may take four or five Days & according to his rule the Child may be starved to Death. Mr Levette says the Child should not be applied to the Breast till the Milk fever is over, but by the Child sucking the Milk fever is lessened & besides the Child will want food for four Days whereas the longest that a Child should want food after Delivery is thirty hours; but the best rule is that as soon as the Mother finds any uneasiness in her Breast the Child should be applied & this should be rather earlier than later, for if later the Breast will be distended & they cannot bear the Child so soon.

How soon should a Child be allowed other food than the Milk? Formerly Children were not allowed any other food than the Milk

Milk untill such time as they were weaned but this makes the weaning of them very difficult; some have recommended to give them some other meat about the fourth or fifth month, but the sooner you begin them the better, & you may begin them about the first month or earlier if you please & by accustoming them to the meat the weaning is more easy. I shall speak of the most proper meat afterwards. In this way you give them Milk & food untill you are to wean them. Now what

is the most proper time for weaning them? Some have said that they should not be weaned till the 16 or 18 month & then they have Teeth, but this is too long for a Woman about 12 or 13 months after Delivery has a return of her menses & after this they make very bad nurses, so if a <sup>child</sup> brought in nurse as she will be brought to bed some time before she begins to nurse, the menses will flow when the child is about 10 or 11 months old; so it is a good Rule to wean the child between the 9 & 12 month & if you have accustomed the child to some food before, the child will be easily weaned.

Weaning is done in two ways, either to take away the child from the breast all at once or to do it by degrees. The first is the best method <sup>once</sup> to do it all at

once). The French when weaning Children take the Child from the Nurse & give it to another Woman to keep, but this is not so proper for at this time there are only two things that the Child has any regard for viz. the Milk & the Woman that gives it & forto deprive it of both will do more harm to it than when only one, the reason for them doing this was that they thought when the Nurse is out of sight the Child will be more easily weaned as the sight of her will put it in mind of the Breast but this is not the Case for a Child will be as easily weaned by the nurse as any other person. When the Child is weaned it is customary to give it some Medicines, but these are quite unnecessary as the change of Diet is not sudden being accustomed to Spoon meat already, but if the Childs stomach is not good you may give it some of the Tincture of Rhubarb or if it has a looseness you may give it some Crabs Claws or any Absorbent, but if the Child is healthy Medicines are quite unnecessary unless giving perhaps a little of the Tincture of Rhubarb once a week or fortnight.

I have as yet spoke only of Children being brought up upon Womens Milk but there are still other methods viz. to feed them with Cow Milk or upon Spoon Meat.

Children



Children are sometimes brought up on Cows-  
 Milk & this is a very common practice in-  
 Russia & it is recommended by Vandermon  
 & others in order to make the Children stout  
 & hardy; but Cows milk may not agree with  
 them altho Womens milk will, for Womens  
 & Cows Milk differ very essentially from one  
 another, altho they do not seem to differ much  
 in their Component parts, perhaps the only  
 difference you will perceive is only the Cows  
 milk affording a little more Cream than-  
 the other; but if Cows milk is allowed to  
 stand in a warm place it becomes Acrid  
 whereas Woman's Milk becomes putrid  
 this shows that Womens milk is more of  
 an Animal nature than Cows. Likewise  
 Cows milk is coagulated by Rennet where-  
 as Womens Milk is not. Rennet is a  
 Liquor which is found in the Stomachs of  
 young Animals & is secreted by the coats  
 of the Stomach, some have supposed that  
 Rennet is an Acid, but this is not the  
 case for it tinges the vegetable colours  
 (as the juice of the jolly flower) green which  
 shows that it is rather of a Putrescent  
 Animal Nature. Some have thought  
 that it is peculiar to certain animals only  
 as Calves, but I have found it in all animals

Animals & even in Birds I found the Internal  
 membrane of the Gizzard did it but not the first  
 stomach, yet found the same peculiarity in other  
 Animals for it is only the fourth Stomach of  
 Calves which does this & none of the others; I found  
 this Runnet in Hares & in Solon Geese tho they  
 live on fish. I found it also in fishes themselves.  
 Some have thought that runnet was formed  
 by the Milk becoming acerbent in the Stomach  
 but I found it Animals who had never tasted  
 meat as still born Children & Calves; indeed  
 the milk in the Stomachs of young Animals  
 will thicken other milk as there is a quan-  
 tity of Runnet mixed with it, but by Expt  
 I found that by infusing the Stomach &  
 the milk contained in it, separately in wa-  
 ter, that the infusion of the Stomach was  
 a very considerable deal stronger than the  
 Infusion of the milk. Therefore Runnet  
 is not formed by the Milk becoming ac-  
 erbent. Of the Vegetable kingdom I do  
 not know of any that has this effect but  
 one which is the Common Archchoke -  
 which in the month of September & October  
 has purple flowers. The juice of which will  
 thicken milk & no other part of the plant  
 has this effect; I thought that the flowers  
 of the Common Thistle as it is a species of  
 the Archchoke would also have this effect  
 but

but I found that it had not. This quality has also been ascribed to the Galleum or Cheese Runnet, I tried it in the month of October but I found it had not this effect; but I did not know but this was owing to the herb not being in its prime, I accordingly tried it in the month of July & I found that it had no such effect. The Juice of the Sorrel has also been thought to have this effect; but I found it had not; the way in which this effect has been ascribed to it is that it contains a great deal of Acid which passes milk but does not thicken it like Runnet the difference between Acids & Runnet here the Acids causes an Immediate separation of casein from the serum, which is called passeting, but the Runnet thickens the whole of the milk & no separation happens for a long time after. Runnet is very peculiar for if the milk is heated about  $132^{\circ}$  it loses the coagulable power but if  $100^{\circ}$  it will do it very readily; Also if you infuse the Vegetable Runnet in warm water it will have no effect, but if in cold water, or squeeze out the juice of it among the milk it will immediately do it. I must now return to show the difference between Cow & human Milk, Cow Milk is made into a passet by acids, but the human milk is not affected in the least by



by Acids either vegetable or mineral & altho the milk is boiled it will have no effect. & in Cow milk the warmer it is the Acid will act sooner on it & a less quantity of it will answer the purpose, for a Tea spoonfull of Lemon juice will pisset as much milk if warm, as two or three table spoonfulls will do when Cold. Since acids do not pisset human milk what is the reason that Children will often throw up milk Curdles which has been attributed to an acid on the Stomach of the Child but this is not the Case as I have shown above, but if womens milk is allowed to stand some time unrefined it will curdle. Therefore from what I have said Woman & Cow milk differ very Essentially from one another & altho the one agrees with an Animal the other may not agree with it. But this should be ascertained by Expt. as by taking 100 & feeding them with Cow Milk & giving 100 to be nursed by Women, in this way we need know which is most preferable, but it cannot be properly ascertained by giving two or three Children to be treated in each way Mr Rollin gives an account of 132 being fed with Cow milk & at a year & a half end only 13 were living so by this it would seem to be a bad method. The

The way they do this in Russia is they have a horn & cover the small end with the teat of a cow which is perforated with small holes which the Child puts in its mouth after being filled with milk, the people in Russia after the Child is accustomed sucking the horn, tie it to their Cradle & the Child takes it itself when it wants it; I think this method should be tried in the foundling hospital & remedies may be given along with it so as not to allow it to have bad effects, this method would save much Expences as one woman could take care of several Children at the same time. Children are not only brought up on Cows Milk, but also on Spoon Meat. Many people have thought that it is the best method to bring them up on spoon meat as Paracelsus which they think makes them stronger, but should be Determined by Experiment only & the Foundling Hospital has made a trial of this, they gave 136 to be fed with spoon meat & in about a year 66 of them Died, & they gave 49 to Wet Nurses & in about a year 10 of them Died, you see the Disproportion here is very great for there was about one half Died by being fed on spoon meat whereas by being nursed only  $\frac{1}{5}$  Died. This finishes the Treatment of Children

I proceed now to their Diseases.

The Diseases of Children are more frequent & more obscure than those of Adults. They are more frequent as appears from the Bills of Mortality for by them we find that  $\frac{1}{2}$  of the Children that come into the World go out of it before the fifth year, whereas the mortality is not so great at any other time of Life; they are also more obscure, for we can learn nothing from their pulse, as it is naturally very quick being 130, 140 & even 150 in a minute so that you cannot easily count it, likewise they are so irritable that if they are in the least fretted the pulse will be raised 10 more in a minute, & you cannot get the Child to hold its arm so long as that you can number, therefore by these Circumstances you can learn nothing from the pulse; They cannot tell their Complaints & you can learn nothing from the Urine as it cannot be kept: by these Circumstances their Diseases are more obscure than in Adults. Now a person by a constant attendance on them will learn more from the Eye than any of the above Circumstances, for when they are Disordered their Eyes are always Red, & you can judge by the



the great heat & difficulty of breathing, for when they are indisposed they have always a difficulty of breathing, so that if you was not acquainted with it you would think that they had an Inflammation of the Lungs. You also know their Disease by what they throw up or purge for if a Child has a vomiting or purging, which have a sour smell there is no doubt but it has an Acidity of the Primæ viæ; The method I use to know whether or not it is sour I have a small strip of paper which is rubbed over with the Juice of the Selly flower which I dip in what the Child vomits or purges & if it turns it red I am sure there is an Acidity of the Primæ viæ. Likewise you must have the Report of the keeper who will inform you whether the Child has Startings, Convulsions or the mouth sore, you should also consider if there are any Epidemics reigning as the Small Pox &c.

It is of very great consequence to consider the Diseases of Children, for by improper care in them if you do not kill them you may render them weak & Infirm Men.

The Diseases of Children may be divided into 3  
 1 Accidents in the Birth or happening soon after.  
 2 Accidental Diseases as Teething and  
 3 The Diet most proper for Children. 1

1 Diseases from Accidents in the Birth or soon after it.

Tumors on the Head. When the Child's head is long in the Passage there are often a Tumor on the hind head, owing to the part being bruised by the Alteration of the Bones of the head & pressing against the Mother - here the parts have lost their Elasticity, therefore by spirits & gentle friction the parts will recover their Tone & absorb the effused liquor & so the Tumor will Disappear. But there are other kinds of Tumors sometimes found on the heads of Children & are owing to a blood vessel bursting, & the quantity of blood which is effused forms a Tumor & this happens sometimes in tedious Labours & when you find the skin is not discolored, no pain to the Child upon being pressed & no great Tension than you are certain that it is a Tumor owing to this Cause; now what are we to do here? The first case that I had of the tumor as I never had heard of it, being never taken notice of by Authors. I opened it with a Lancet & a cup full of pure blood came out & was still flowing as fast as at first, then I knew the Cause, therefore

I stop it up as fast as possible & next day, I found it as large as before so I ordered them to rub it gently with Spirits & in a few days it totally disappeared; therefore it is better not to open these Tumors, for as the Air will get access to the Blood it will make it coagulate & cause a suppuration; & the best method is to rub them with Spirits to increase the Absorption & I have had several Instances since that first time & by this method they went off in a few Days.

Hydrocele. In those Cases where the Child comes down Double that by the compression on the Scrotum a Hydrocele is formed but this goes off in a few Days by the same method as above. Directed, by Rubbing the parts with Spirits & I never saw a Case wherein this method failed.

Fractures. Sometimes in the Premature Labours by turning the Child some of its bones are broke, if it is the humerus or Femur you will know it by the Limb falling down & not making motion, but this will not show a fracture of the fore arm or leg as one of the bones only may be broke, but you will distinguish a fracture in a Child as easily as in an Adult, and



and as there are no sharp points & splinters in fractures of a Child, they will not be so painful & they will soon heal the bones being very soft & generally they will be healed in Ten days. The method of Cure is very simple. you adapt the broken extremities of the bone as exactly as you can, but you need not be very careful about this for altho the bone should ride over one another the deformity will not be perceived when they grow up. Then you must dress the fracture lightly & keep the member free of motion. if it is the Arm you can easily do this by pinning the sleeve to the Childs breast, but this is more difficult if the Leg or thigh as it must be often moved to clean it, here the Child should be placed on a high place as a Table & here the nurse can give it such or clean it without giving the Child much motion.

After Præternatural Births the Child will lie sometimes without breathing or giving any signs of Life you'll take a bandl & examine it as it might be dead a week or two before & if you attempt to do any thing to bring it to life you will show your Ignorance. so when you see

see marks of Putrescency on the Child as the skin coming off upon being touched then you need do nothing about it. —

But when there is no such marks in order to make it breathe you should give a stimulus to the Lungs & for this purpose I commonly introduce a female Catheter into the Childs mouth & blow into its Lungs when this is owing to a tedious Labour there is a plethora in the head & some have recommended to keep the placenta in the Womb but the sooner you cut off the communication between the Mother & Child the better & Mr Addison found upon dissection of these Children that the Vessels of the Brain were turgid with blood & those in the Thorax &c in the natural state it is more than probable that they are apoplectic & therefore the letting blood of that Child will often recover it therefore as soon as born the Umbilical cord should be cut & it allowed to bleed some time & then tyed in the common way; When the Child is beginning to breathe but does it slowly the throwing cold water on the Thorax will make it

it breathe faster, for the cold water will be a stimulus to the Intercostal muscles & will make them Contract which will pull the Ribs upwards & outwards & enlarge the Thorax so that a vacuum will be formed then the Air will rush into the Lungs; this method will answer better than applying Volatile Medicines to the nose &c.

Gum, No Author can inform what this is or give the cause of it; It is of two kinds the Yellow & Red & they both happen often at the same time & when the Child dies & you cannot give a name it is often called the Gum as they are Ignorant of the Disease. The Yellow I do not consider as a Disease but is a jaundice which all new born Animals have, & if the <sup>skins</sup> of all other Animals were like that of the human we would perceive them to be Yellowish at Birth like a Child. & this seems to depend upon the Change of the Circulation in an unborn & born Animal; when the fetus is in the womb a small quantity of blood circulates thro' the Liver there being a great quantity carried from the Sinus of the Vena Portarum into the Vena Cavalis by means of the Canalis venosus however some bile is secreted but there <sup>is</sup>



is not a great demand for it at this time as we find by Dissections of Still born Children that the Gall Bladder is commonly full of Bile & by it stagnating may become thick & stop up the Duct. born., but after birth a great quantity of blood circulates thro' the Liver & consequently there is a greater secretion of the Bile which being taken into the blood again causes the yellowness of the skin. There is no Danger here it is often occasions a Drowsiness, but by Purgung the Child frequently you will clear the Duct & cure it.

Very often this yellowness is attended with Red pimples which is called the Red Gum & Children in the first year have often these Red pimples on them which do not deserve our notice as they occasion no uneasiness to the Child.

Aphtha or Thrush: This Disease first attacks the mouth of the Child, it is not a Modern Disease but was known to the Ancients. Hippocrates in his 24 Aphor. says the mouths of Children are subject to Ulcers; they are not Ulcers but the mouth looks as if the Child had eaten lumps & some of the grains of them adhere to the mouth; but by his description it

it appears to be the same Disease. This Disease is not confined to the mouth, but affects the Oesophagus, Stomach & the whole Tract of the Elementary Canal. This Disease is of two kinds: One which is confined to young Children which I am going to speak of & one which is confined to grown up persons & appears at the end of Chronic Diseases. No Author has ever treated this Disease properly there is a Dutch Man who has treated of this but then it is when it happens in grown up persons & has taken no notice of it in children.

It is difficult to assign a cause for this Disease some have thought that it is owing to the food which they get at this time viz. Milk turning acerbent on their Stomachs but if this was the cause they would be as liable to this Disease the whole time of Nursing as on the first month, which is not the case as the milk will become as much acerbent then as on the first month. Again others have thought that it is owing to the Air passing into the mouth & occasioning an obstruction of the Mucous Duct of the mouth & in confirmation of this Van Swieten

Sweeton says that when he was in Holland he saw this Disease often but when he resided in Vienna he seldom saw it & therefore thought that this Disease was owing to a moist damp Air which obstructed the Mucous Ducts as the Air in Holland is moist & damp but when he stayed in Vienna he had not the opportunities of seeing Diseases as when in Holland, & we find this Disease in Dry as well as moist Air, for we find it in warm climates as it was known to Hippocrates, & I have observed that it rages as much in the Summer as Winter. Therefore this would not seem to be the Cause of the Disease, and what it is I cannot say.

This is seldom a Dangerous Disease unless it covers the whole of the mouth; in all my practice I never saw any more than two Die of this Disease & one of these was nine months old; it sometimes prevents the Child from sucking & in this case is Dangerous but when it does not interrupt the Sucking it is not Dangerous. The Duration of this Disease is uncertain but it commonly remains six or eight Days & then shells off like the Small Pox. In this Disease there is a sharpness of the Liquors of the mouth which.



which occasions Red pimples on the breast of the Nurse as in the small Pox when a Child is seized with the small Pox altho' the Nurse has had the Small Pox before yet by the Child sucking some pustules appear on the Breast.

Cure This is done by any thing that will Dry it & make it shell off soon will cure this Disease, for this reason all Emollients are hurtfull as they encourage the spreading of it, but give any Astringent or Drying substance as Grabs Eyes in a little Syrup, for if you give it in a Dry powder it may cause convulsions & I once saw an Instance of this the Child had this Disease & gave it some Grabs Eyes which immediately produced convulsions but when I added some Liquid it had no such effect. This Disease when severe is apt to turn Gangrenous & then it should be treated like the Confluent Small Pox to give Bark in a liquid form frequently to wash its mouth & if it should swallow it so much the better & you know this to be the case when the Interstices between the spots is of a livid color; When the Aphthae is spreading fast a small blister to the shoulders may be of service, but here you

you should put a piece of Linnen between the Wols:  
 & the skin & you should not allow it to re-  
 main so long as upon an Adult, & by not at-  
 tending to this I have often seen a Gangrene  
 produced. If the Disease is mild by washing  
 the mouth with astringents as Mel Rose,  
 Spirits & water, Claret, Lemon juice & Sugar  
 the Disease will go off.

Sometimes children are born with some  
 Proternatural parts, sometimes they have  
 an Additional number of Parts as Toes  
 & fingers & it is remarkable that when there  
 is an Additional number of fingers there is  
 the same of the Toes. the additional toe or  
 finger is commonly connected to the little  
 toe or finger by a fleshy substance & the  
 sooner you take it away the better, for if  
 you defer till the Child is older. this part  
 will grow in proportion to the body & the  
 blood vessels will increase; the first case  
 that I had of this I put a silk thread around  
 the root & it dropped off in ten days, but  
 this is not so good, for it gives great pain  
 to the Child all that time & also it does not  
 take it away so close but that a small-  
 stump remains, therefore the best way is  
 with the knife & you need not be afraid of  
 any

any hemorrhage as the vessels are so small & by dressing it with a little dry lint it will be heal in a few Days.

Sometimes Excreescencies grow on different parts of the body, they should be cut off & the sooner the better; I once met with a large excreescence on the Perineum of a Child w<sup>as</sup> I immediately cut off & the only thing to be attended to here was to keep the wound free of the Urine which fret it & make it fester & long in healing, for to obviate this I applyed a poultice to it which would make it suppurate gently & above the poultice thick cloths to absorb the Urine & by this method it was heal in ten or twelve Days. Some people are for delaying this untill the Child is further advanced in years, but it will be more difficult to do then as the Excreescence & consequently the blood vessels will be increased.

Sometimes Children are Born with parts Imperfect. as the Imperforated Rectum. This may be of two kinds. the Rectum is imperforate & do not know where it should terminate, & sometimes it is imperforate & you can perceive where it should terminate. This is Dangerous but when there is a communication between the Rectum & Bladder they



they may live with this Distort some years  
 but when this is not the case they always  
 die within nine Days. We must here en-  
 deavour to make an opening to the Rectum  
 & for this you make an Incision with a  
 common Scalpell where the Rectum should  
 terminate. & then take a common Lancet  
 & run it up untill you see the Meconium  
 but often you will never find it as the Rec-  
 tum is wanting. & when you cannot find  
 the Rectum with the Lancet you may give  
 over hopes of succeeding; I have now seen  
 seven children in this way & I never succeed-  
 ed in any of them, but this is not to say  
 that we should not attempt it, for some-  
 times the Rectum is only wanting for an  
 Inch & here we may succeed. Monst.  
 Petit in the memoirs of the Academy of Sur-  
 gery recommends the use of a Trocar for  
 perforating the Rectum, but this is a bad  
 Instrument, for it requires great force  
 to introduce it, thus we see what force it  
 requires to pierce the Abdomen in an  
 ascites where the teguments are stretched  
 with the water how much more force  
 will it require to pierce a part which  
 is not tense & will yield to the force; there-  
 fore I think a Lancet a better Instrument

& with it you can reach far enough & if one  
 Meconium comes away when you have gone  
 up the whole length of the Luncet you may de-  
 -pair of success; There are instances of  
 Children living some time in this way &  
 I had an Instance of one living Six Weeks  
 but in these Cases the Rectum terminates  
 in the Bladder. If you look the Memoirs  
 of the Academy of Sciences you'll see a Case  
 of a Child living two years with this im-  
 -perfection, the Rectum terminated in the  
 bladder & at the termination there was  
 some thing like a valve which allowed the  
 feces to go into the bladder but hindered  
 any thing in the bladder from entering the  
 Rectum, but by the Child swallowing a Cher-  
 -ry stone w<sup>ch</sup> could not enter the bladder  
 & thereby obstructed the passage at Dile.

There are also instances of the Urinary  
 passage being imperforate, but I never  
 yet saw an Instance of this but that it  
 may happen is very probable, & here we  
 must make an opening with a Luncet into  
 the Meatus Urinarius. As Children are born  
 with additional or imperfect Parts we should  
 therefore examine every Child carefully after  
 Birth.

Every

Every Child is born with the faculty & Inclination to suck but this may be impeded by various Causes but it is generally imputed to them — being Tongue Tied — i. e. the frenum under which being fixed at a little distance from the point is fixed to the point & prevents the free motion of it. Authors generally recommend to cut it as the children at this time can be kept — peaceable & have commonly their mouths open & thereby can be easily done & if neglected till the fourth or fifth month it is more difficult as the Child is not so easily managed & if it is not done it is thought that it will hinder Speech; but this is not the Case for I have seen persons who were Tongue Tied speak as well as any other person; so if the Child cannot speak well & is Tongue Tied this must be owing to some other Cause. — Suction may be impeded by a multiplicity of Causes & is not confined to being Tongue Tied as some have imagined. It is sometimes owing to the wrong situation of the tongue, by it being too close to the palate, so that when the nipple is put into the Child's mouth it goes under the Tongue so that it cannot suck & this is remedied by taking a Tea spoon & press down the Tongue & then put



put the nipple into the Child's mouth above the Tongue & you need not do this above twice or thrice when the Child will do it itself. Monfr Petit who has wrote a Treatise on the Tongue Suckt says that it is sometimes dangerous to cut the frenum as it may be so much loosened as to be inverted & suffocate the Child & this is a method used by Negroes when they have a Bad master. They cut their frenum & swallow their tongue & thereby suffocate themselves; Any pair of Scissors which can cut at the point & are also blunt at their points will cut the frenum with safety I always use a pair of small Scissors whose points are covered with a piece of metal & thereby there is no danger of wounding any of the vessels of the Tongue.

Another Cause of impeded Suction is, that altho every Child is born with the faculty of Sucking yet sometimes it is not so ready as it should, yet by a few trials it will suck very well. Another Cause is the Ignorance of the nurse, when she has large Breasts & when the Child has taken hold of the nipple the Breast of the Woman presses on the nose of the Child so that it cannot breathe & therefore it cannot suck, but if the

the woman should press in that part of her  
 Breasts which is before the Childs nose so  
 as to allow it to breathe the Child will suck  
 very well. Another Cause is a Distortion  
 of the Tongue; it sometimes happens that in  
 the Prelim natural Labours when the body  
 is born we are obliged to put our finger into  
 the Childs mouth to Extract the head, which  
 may hurt the Jaw in such a manner as  
 to make it suck with difficulty at first, but  
 by some trials it will come to suck very  
 well. Another Cause is a Disease that I  
 have mentioned before viz the Aphtha. —  
 So you see that the Tongue being touched  
 is not so often the Cause of Impaired Suc-  
 tion as is imagined & where it happens  
 once from this Cause it happens twenty  
 times from other Causes.

After the Umbilical Cord of Child-  
 ren is cut & tied you wrap it up in a piece  
 of Linnen & then from five to eight days it  
 drops off close to the Body & then apply a  
 piece of Singed Linnen to it, sometimes it  
 does not heal in fourteen days after this  
 & then it is always Ulcerated & Excoriated  
 the only way to effect a cure is to keep the  
 part

part clean & wash the Ulcerated part with Astringents as Lime Water. Spirits & I have sometimes been made Balsam of great service here & by this method you will cure it in two or three Weeks; but when it does not Ulcerate it generally is heal in two or three Days after the Cord drops off.

Sometimes tho this is heal yet the Ring is not form & thereby the Intestines may come out at the ring & form an Umbelical Hernia, this may be cured by putting a Bandage about its Belly, but when the Child cries much it will force out the Intestine & a greater resistance to the part is necessary & for this I commonly take a piece of White Iron about the size of a Crown piece which is made concave on one side & convex on the other, it is perforated with holes & the concave side is stuffed with Wool & then covered all over with Linnen this is put over the Navel & over it is put a Bandage so broad as to take in the whole Belly of the Child, for when narrow it will slip up or down but when broad in this way it will remain in the same way as put about & I never saw a Cure fail in this way. The Trusses that are made for this purpose are all too hard so that they will Gall the Patient being made of hard Leather & the Bandage is too narrow so that it



it will slip up or Down. The same Distemper happens to young Women in consequence of a Difficult Labour & I had an instance of one not long ago where the Intestine which protruded was as large as both my fists I treated her in the same way as mentioned but the piece of white Iron was larger than the palm of my hand & the Bandage in the same manner as before took in the whole of her Belly, by this method she was cured in a short time.

There is an appearance of the Navel which one may take for an Umbilical Hernia over the skin there being very loose & air contained in it & if you press it with your finger & thumb it will disappear. This cannot be cured in the same way with the Umbilical Hernia, for the pressure will do no service. I once tried to cure this by tying a thread round it & in ten or twelve Days it dropped off, but it occasioned great pain to the Child & it was inflamed all around it & was some time of healing after it dropped off but it had the desired effect for it carried it off, but a better way would be to cut it off by the knife, but it is not material whether you do any thing or not as it is not troublesome & always continues the same.

Sometimes

Sometimes when the Umbilical Cord drops too soon off Umbilical Hemorrhages happen. You'll find this mentioned in Different Authors but I never had occasion to see it myself. It is a Doubt whether the blood here flows from the Arteries or the Vein as it runs out not per saltum, but in a continued equal stream. You cannot stop the Hemorrhage here in the common way, there is no room for to make a leg-tie as you did before, & by using a needle & thread you may take in the Peritoneum & the thread at any rate will irritate & inflame the part & at least produce suppurations; therefore in this case I think the most proper method will be the Actual Cauterizing, which will stop it with less Danger than any other method. Altho the Testes come down commonly before Birth yet sometimes it happens that one of them does not go down till after Birth & when it presses down it may be taken for a Rupture, but the Distinction between them is a Rupture comes down & in the Horizontal posture it disappears which this does not, & a Rupture is more bulky, but above all it is known by examining the Scrotum if there is only one Testicle felt there you are sure that it is the other coming down & here nothing is to be done. When

When the Testes are come down into the Scrotum the Tunica Vaginalis is shut up, but when it slowly shut up & the Child cries much the Intestine is pushed into it & is then in contact with the Body of the Testicle & this is the Congenial Hernia which is Described by Mr Pot & this species of Inguinal Hernia is very frequent to young Children of the Male kind. I have already distinguished this Disease from one of the Testicles coming down & it may be distinguished from Hydrocele & all other Tumors of the Testes, from the swelling here beginning at the ring of the muscles & from its Disappearing - when the Child is put in the horizontal posture.

You should scarcely apply any thing at all here when the Child is very young for it is impossible that the Bandages can be kept Clean & besides they are apt to Gall them & you are sure to cure it when they are a little older. You should endeavour to prevent them from crying & keep them much in the Horizontal posture & may apply cloths dipped in Spirits.

The



The skin of Children is very Tender & is thereby liable to Excoriations. Erysipelas & other Inflammations. The principal thing to be done here is to keep the Child clean & to dust the Excoriated part or Erysipelatous part over with flower or White Lead to absorb the matter, but sometimes the flower or White lead by the matter being mixed with it will become very hard & will hurt the patient which is prevented if it is only Dusted very thinly. I shall mention

The Venereal Disease as it appears very differently in the Child from the Adult & altho you are accustomed to this Disease in Adults you will not know it in Children & altho it is known you will be at a loss how to Cure it; When the Child is born there is no blotch nor any thing to be seen on it, that can make you suspect that it has the Venereal & when given to a Nurse in eight or ten Days Symptoms of it will appear & in this way the Infection is often imputed to the Nurse when she is entirely Innocent. By looking into Authors you cannot know this Disease & altho you know it they do not learn you how to Cure it. altho the Parents have had the Venereal Disease & the Child infected by them yet the

the Disease does not make its appearance till about fourteen Days after Birth. then it appears with Excrecencies on the Perineum & parts of Generation. often there is an Eruption on the face & particularly the forehead which resembles the Confluent Small Pox, likewise their mouth is often affected & then they have a hoarseness which shows evidently to be Venereal especially if there is likewise Eruptions about the Neck & parts of Generation. These also go over the whole Body very often; & it has a great resemblance to the Scurvy so that you cannot Distinguish between them unless you know whether or not the Parents or Nurse have had the Venereal Disease but you need not care much whether you can Distinguish them or not as the Cure is perfectly the same, but generally if the Disease at first is confined to the Lower Extremities & parts of Generation it is the Venereal & if the Upper parts it is the Scurvy. I do not want to say that the Scurvy is confined to the Upper parts at first for it may appear first in the lower Extremities, but generally it is not the Case.

The,

The Child may receive the Infection in two ways either from the Parents or the Nurse; if you are suspicious of the Nurse you should enquire about her Child if it had any such Eruption & if dead enquire into what Condition it was before it Died & by this way you may know if it has received the infection from the Nurse. But more frequently the Child receives the Infection from the Parents & sometimes it may receive the infection from the Father & the Mother quite free of it; the first Case I had of this the Child & Father had evidently the Venereal. The nurse was free of it & the Mother told me that she was also free of it but I had not an opportunity of Examining her, but I met with similar Cases afterwards where I had opportunities of Examining the Mother & she had nothing of the Venereal. You'll often find yourself so situated that you cannot enquire of the Parents whether they have the Venereal or not so you will be obliged to attempt a Cure on suspicion.

Cure. If the Mother has had the Venereal Disease during Pregnancy altho' she has got a sufficient quantity of Mercury you must not trust to that for altho' she seems  
to



to be perfectly well apt in fourteen Days the Child  
 will have the Appearance of it. & the Mother  
 may not yet be clear of it altho she may have  
 no Symptoms of it. so when you are suspicious  
 you should not allow the Mother to nurse  
 the Child but put it on a Clean Woman, for if  
 an Infected Mother is the Nurse the Child  
 often Dies but if put on a Clean Woman  
 you may soon conquer the Disease. ~  
 One method used is to give the Nurse & but you  
 must conceal it from her & if it should touch  
 her mouth, which it will do if she takes any  
 quantity of it then she will have a suspicion  
 of the Medicine she Uses & of the Disease of the  
 Child which will make her give up the Child  
 therefore this method is not so convenient; but  
 after all I doubt much if the Child can be cured  
 by giving the Nurse & for I found by expts  
 that the Milk of a Woman taking & is not  
 impregnated with, for by putting D. O & other  
 M.S among some of the Milk & allowing it to  
 remain some hours there was no Alteration  
 in their Color & if it had been impregnated w<sup>th</sup>  
 & the I would have received a Dark color<sup>ed</sup>  
 but perhaps I did not suffer the metals to  
 remain long enough among the Milk perhaps  
 I should have allowed them to remain 24  
 hours

hours, I am not sure how many hours I allowed them to remain but I am sure it was not 24 hours, but it was long enough to determine that the milk was not much impregnated. Now then happens it that Children are cured of this Disease by giving the Nurse ♀ since the milk is not impregnated with it? The reason is this a great quantity of the ♀ goes off by the Skin & thereby she has a Mercurial Atmosphere around her & if you place a Watch near her, it will be soon changed to a blackish color by the Child lying always within the Mercurial Atmosphere a great deal is received by the Child & so may cure it.

I also tried the rubbing in the ♀ Ointment but as this method is uncertain in Adults it is no less so in Children: But the best way that I found was to give a grain of Calomel with a little sugar once in the Twenty four hours but you should take care that the Child gets it all & as it must be given with some Liquid the Calomel will fall to the Bottom therefore you should not trust this to the nurse but see it done yourself & you'll find that by six or seven Doses the Symptoms will be greatly abated. It would seem  
strange

strange that ♀ does not affect the mouths of  
 Children as it does in Adults & this I imagine  
 is owing to Children being kept cooler & hav-  
 ing always an Open belly. I never yet saw  
 a Child have a Salivation altho I have given  
 it great quantities of Mercury. I have seen  
 Convulsions produced by giving a grain  
 of Calomel every 18 hours & the only cure  
 is to intermit the Calomel for two or three  
 Days, but I have seen larger Doses as  
 two grains in the Day produce neither  
 Salivation nor Convulsions. The Child ha-  
 ving an Open belly prevents a salivation  
 as it is prevented from going to the sali-  
 vary Glands by being carried off by the  
 Intestines. But the Cool Air has a great  
 effect in preventing a Salivation as I  
 not long ago found in a Lady. she for  
 some Complaint was ordered ♀ it was in  
 the Winter Season. she used great quanti-  
 ties & went about the house in her usual  
 way & yet no Salivation was produced &  
 was freed of her Complaint. some times  
 afterwards (being the Summer) she used  
 ♀ again & then she kept herself warm  
 by a fire & a very small quantity produced a



arvolent Salivation. We also see instances of this in the Inoculation for the Small Pox in the Preparation some get a good quantity of  $\Phi$  yet by the cool Regimen they are put on no Salivation happens.

When the Symptoms Disappear it is proper still to continue the use of  $\Phi$  & the method commonly use is I give a dozen of Doses of Calomel one of them is to be given every day untill six are exhausted & by this time all the symptoms commonly disappear & then instead of giving a Dose every Day you'll give only a Dose once in the two days or seldomer untill the remainder are used. & by this time the Child will be completely cured, if not give a few more Doses.

This method is preferable to all others as it makes a more complete & speedy Cure than any other & besides you may Cure the Child in this way without giving any suspicion to the Nurse, which would make her give up the Child.

As the Small Pox sometimes attack Children when young I shall therefore show the Advantages & Disadvantages of Inoculating when young & give some Directions about Inoculation. Inoculation

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## Inoculation of the Small Pox.

We scarcely knew anything of it till the End of the last Century; the Circasians were the first who practised it by rubbing the hands of the persons whom they wanted to be seized with that Disease with the varolous matter. In the year 1673 a Grecian Woman of Constantinople inoculated a great many by <sup>introducing</sup> ~~rubbing~~ the matter into them & by the year 1713 she had inoculated upwards of 6000 persons. This was not known in Britain till the Year 1713 at that time a Surgeon came into Britain from Constantinople brought over the method & the British Ambassador at that Court had his Son inoculated there who came home that year & made Publick the method; & in the Year 1721 the Physicians of London applied to His Majesty to have six Malefactors to try the Inoculation which was agreed to, five of which had them very mild & one of them had it not & there was a suspicion that he had the Small Pox before & since that time it has become General over Britain. By the Inoculation we reap five Different Advantages. w<sup>ch</sup> I shall consider

- 1 The Choice of matter.
- 2 The Age of the Patient.
- 3 The Preparation.
- 4 The mode of Inoculation and
- 5 The Treatment in the Eruptive fever.

1 The Choice of the Matter. People have looked on this as a great advantage by taking the matter from Small Pox of a good kind & must avoid taking matter from Bad Small Pox & from those persons who have other Contagious Diseases along with them. But not so much depends on the Matter as is imagined for Dr ..... inoculated 21 Persons from a confluent Small Pox & they all had them very favorably & none of them Died, so that it would seem that more depends on the habit of body than on the Matter. People are likewise afraid of communicating other Diseases along with the Small Pox, but there are few Diseases that can be communicated by inoculation like the Small Pox, indeed I scarcely think there are any, for we have Instances of the matter being taken from those who had also the Venereal Disease, also the Itch yet the inoculated persons had none of these Diseases & I doubt very much of the Measles being



being communicated in this way, for I tried to inoculate the Measles on nine Children & tried on them the Different methods of doing it but none of them succeeded but one & that Child had been staying in the Infirmary where that Disease was raging at that time & had them no milder than common & what made me think that he had not been inoculated was that the Incision on his Arm did not inflame as it always does in the Small Pox but healed up entirely in a Day or two; the different ways of Inoculation I tried were, I inoculated some of them with the Blood taken in the Eruptive fever, & I scratched the pustules when at the height & took the blood & inoculated the rest with it. — But be this as it will you should not run any risk as you can get good unexceptionable matter very easily.

The way of preserving the matter, this is done in various ways, but what is often used is keeping it on the point of a Lancet & may be kept this way a long time. Mr Pot was the first who discovered this way which was by Accident, he had been opening some pustules with a Lancet which he had,

has not wiped clean & a few days after 1761  
 a Lady with the same Lancet who was in  
 the common time, scored with the small Pox.  
 2 The Age. This is every Material, for  
 if we could inoculate with as great safety on  
 the third month as the third year it would  
 be a great Improvement for as we cannot  
 inoculate from the time of Teething, to the  
 third year in populous Cities they may  
 happen to be infected unless done before  
 they begin to cut teeth & those who are in  
 such parts who are at a distance from  
 Assistance it would be better if they were  
 inoculated when young before Dentition  
 I shall shew the Advantages & disadvantages  
 of inoculating Children before  
 Dentition & first the Advantages  
 One Advantage is that they are of a better  
 habit of Body & they resist the infection  
 more than when older what shows this is  
 that I have inoculated several Children  
 in the lying-in Ward of eight days old  
 but never one of them had the Small  
 Pox, & I therefore think that they resist  
 the infection more than afterwards &  
 perhaps this may make them more  
 favorable than afterwards. I say only  
 perhaps

perhaps as I am not sure.

Another advantage is that they are easily  
cooled or heated, & you keep them on one  
Diet, they have no fear & they do not grow  
over sucking. Another Advantage is that  
altho' they have a number yet by them being  
so young the pustules do not make any  
Impression on them & altho persons may  
escape them untill they be above twenty,  
yet they may be seized with them & then  
the pustules will leave great Impressions

Objections against so early a period are  
They cannot tell their Complaints but this  
is not material for there is not a Disease  
that the Body is incident to that we can  
manage so well without the Patient de-  
claring any thing as the Small Pox &  
it mostly depends on you seeing the Pati-  
-ent. Another objection is the time of Teething  
may interfere, but then you can do it before  
that time, but this is uncertain they some-  
-times come out between the 4 & 5 month but  
for one whose teeth cut at this time 500  
cut their teeth much later & some are 10 or 12  
months old before they begin to cut their  
Teeth, but besides the first teeth that are cut  
are not painfull & altho they should cut their  
first teeth when they have the small Pox no  
danger



Danger will follow that Circumstance; therefore you may Inoculate the Child about the fourth or fifth month. Another <sup>dis-</sup>advantage is that in case the Childs nose is stoppt, it cannot suck & thereby must starve, but the only preparation necessary for the Inoculation of Children is to learn them to take some Milt & to Drink & if it should happen that its nose is stoppt so that it cannot suck then you can feed it but this very rarely happens. The Child sometimes will not suck for 24 hours & yet its Nose is not stoppt but this is owing to its being sick & taken a dislike to the Milt but in about 24 hours it will suck again. Another Objection is that Convulsions are more frequent & more Die when young than afterwards. It is true that Convulsions are more frequent at this time than afterwards but then they are not so mortal nor attended with so bad consequences as afterwards & very few of them die by them alone. We also see the same in Adults that those who are accustomed to Convulsions from any cause that they are not so fatal in them as in those who are not accustomed to them.

With regard to the mortality It is true that more die when inoculated so young than the Adults, but then their Diseases are,

are more frequent than those of Adults so that I think that the Mortality on Children being greater than in Adults is owing to the accidental Diseases attacking the Child at the same time with the Small Pox. Upon the whole when they are at a Distance from assistance or in Large Towns it will be advisable to inoculate the Child when young.

3<sup>d</sup> Preparation Every Body who makes a great Secret of Inoculation lay a great stress on the Preparation. We received a great many useful things concerning Inoculation from the Germans who first practised it. they kept them from Animal food, fish & milk for a month before they inoculated them; but in England they are not so strict, the time of Preparation lasts only fourteen Days & then they allow them Milk then they get some Medicine which is different by Different persons but they are all Mercurial also get a dose of Physic after it; what has been often used & much extolled is the following

Attenuated powder  
Calomel 3℥

Cinnab. fact. 3℥

Magnes. alb. 3℥ muscantur probe

Of which ʒ<sup>iv</sup> is a Dose for a grown up person but the principal part of it is Calomel. — Some use a Grains powder w<sup>ch</sup> is much the same

℥ Calomel 3℥ 2℥

Magnes. alb. 3℥

℥<sup>ss</sup> op. Min. ʒ<sup>ss</sup> ʒ<sup>ss</sup> is a Dose They

They get a Dose of this which is repeated three times & then they get a Dose of Physic as Salts; In what is sometimes used is the Acid. *Dose drink* R Spt. Vitriol. Dule. cochlear. II Ag. font. Bullient. ℞ II per diem. p. 2.

d before the Inoculation they commonly  
get a Dose of Theriacal Pill which is

R. Hermes Mineral 354

*Aloe Succotrin.* 3II fs

Camphor.

Syr. <sup>31</sup>Caricophylor. q.s. Monasp. Pl.

ten grains of which is a Dose for an Adult.

Every Country has a Different method of preparation & there is no general Rule for Different Constitutions require different Preparations.

A The method of Applying the matter  
Any way by which you can apply the mat-  
ter to the Absorbents will Answer, but the  
common way is to have a little matter on the  
point of the Lancet & to make a slight scratch  
with it.

5 The treatment of the Eruptive fever

The Treatment now is different from what it was formerly, if the Symptoms were violent & the Small Pox not coming out well they were afraid to bleed as they thought that it would retard the Eruption, but we find when the fever is high that whatever



Diminishes it promotes the Eruption & so -  
 bleeding by lessening the fever will promote  
 the Eruption. The change of the treatment from  
 Heat to Cold is one of the greatest improvements  
 made in the Treatment of the Small Pox & we re-  
 ceived this from the East Indies; Sydenham was  
 the first who used the cold Regimen in this Country  
 all his contemporaries were against it as they  
 thought that heat is necessary to force out the  
 Eruption, but when the fever is high what di-  
 minishes it promotes the Eruption which Cold  
 does, but there happened a circumstance at  
 that time which decided it in Sydenham's favor  
 for in the Year 1639 there happened a great  
 fire in London & many people who had the  
 Small Pox were obliged <sup>to go</sup> out in a Cold night  
 & none received any harm from it & some  
 rather reaped advantage from it. however  
 Sydenham did not push this so far as it is  
 done now. It would seem that a moderate  
 degree of Cold not only promotes the Eruption  
 but to prevent our humours being assimila-  
 ted to the Variolous matter; as by it the Erup-  
 tion is not so great, & Cold is not only ap-  
 plied externally but Internally by giving  
 Cold Drinks. Another improvement in the  
 Small Pox is Purging, when there is appear-  
 -ance of a number & of a bad kind purging  
 Does

does service & does not retard the Eruption as some have thought it are of advantage when near the height, When the matter is pent up by crusts forming on the skin they should be opened but this sometimes brings on an Inflammation on the skin which may be troublesome in this case Blisters & Purgatives will carry off the Varolous matter.

Every one knows that the Advantages of Inoculation over the natural way are very great. If you compare the Deaths in different years the difference is great in the year 1719 when there was none inoculated in Britain no less than 3229 died of the small Pox & in the year 1753 when Inoculation was established only 774 Died so there is no less than 2455 a Difference, but this is not a fair way of Calculation as the small Pox may be Epidemic in one year & not in another but we should compare Registers of those that are Inoculated with those that take them in the natural way; & we find that in the year 1763 when Inoculation was established as much as now that 3582 died that year which is 353 more than that Died in the year 1719 however nobody doubts but that fewer die by Inoculation than in the Natural way but the question comes to this Whether does more people die of the small Pox since

Inoculation

Inoculation was introduced, or before it was used? This makes the French so backward to Inoculation until this question is decided. But I think it is evident that more people die now than formerly; for formerly it only raged once in the five or six years & by that great numbers escaped them but since the Inoculation has been introduced the Infection is never absent & thereby none escapes them. Therefore altho Inoculation is better for Individuals yet it is worse for the people in general.

## 2<sup>d</sup> Dentition

Children are generally born without any teeth altho they are lodged in their Sockets & make their appearance afterwards in about a few months. I say generally for some are born with Teeth, but these soon fall out & are prejudicial both to the Child & nurse & therefore should be drawn. If you examine the Jaw of a Child you'll find the Rudiments of a second set of teeth: The Teeth are lined over with a membrane where there are a great many Nerves interspersed. hence the great pain in cutting the Teeth & the violent symptoms occasioned thereby. The Teeth are different from any other part of the body the part most analogous to them is the bones but



but they differ from them, they are firmer than the bones & have no blood vessels like them for altho blood vessels go to the roots & sockets yet none go to the Teeth & by Dr Hunters Expts by feeding a Pig with Madder the bones were tinged with it but not the Teeth.

The time that Children begin to cut their Teeth is uncertain but it commonly happens between the 5 & the 8 month but you'll find instances of it being 12 may 16 months before they begin to cut their Teeth, but the common time is between the 5 & 8 month: the first teeth that cut are very easy as they are sharp & narrow & are called the Incisors & cut first sometimes in the upper & sometimes in the Lower Jaw after them commonly comes the first of the Molares but sometimes the Canini come before them & come out in this way till when the Child is about two years of age it has 16 Teeth. Now these teeth do not last long for about the 6 or 7 year they fall out & then they get another set.

What are the Reasons that there should be a second set? Various are the Reasons given by Authors but I think they may be reduced to these Two.

1 The first set are generally very weak & are not capable of Destroying hard Bodies w<sup>ch</sup> is necessary to be done afterwards.

2. The Jaw increases & the Teeth do not grow broader & hence if they were to continue there would be large vacancies between the Teeth thus you'll observe when Children are casting their Teeth that there are vacancies between them. We generally imagined that it was the second set that forced out the first, but this is not the case as appears from what Dr Hunter has asserted that the second set have not the same sockets with the first but are quite separate & the reason of the first set falling out is that the second takes all the nourishment from them which makes them loosen & fall out & we see that when a tooth of the first set comes out we cannot perceive the one that comes in its place which would be the case if the first was forced out by the second. It was thought that the first set sometimes occasioned the second to come irregularly out but by Dr Hunters assertion no such thing can happen as they have different sockets. The symptoms of Teething are very Different ~~in~~ Different Children, they are sometimes so mild that you know nothing of it untill they appear & at other times they suffer a great deal from the Teething, but the sharper & smaller the teeth is

is so much the easier to the Child hence the Incisors are always easy. Now in general when Children are cutting their teeth they all have an itching of the mouth & forcing away of the Saliva this is known by them always putting their fingers or any hard substance into their mouth & when near the cutting they have feverish fits, Looseness, vomiting & purging & Convulsions which are occasioned by the tooth pressing against the membrane which covers it or that which lines the sockets for these membranes have a great many Nerves & the nerves of Children are more sensible than afterwards & are larger in proportion to their Bulk than at any after period & their Brain also is in larger proportion for the head of a new born Child is about  $\frac{1}{4}$  of its bulk whereas the head of an Adult is about  $\frac{1}{8}$  of its Bulk: - & as the nerves of Children are more sensible they are more irritable thus we see the least noise will make them start & if a little wine is given them it will affect their nerves with a painful sharp sensation that they will have a Distaste to it afterwards so since the nerves of Children are so sensible & <sup>irritably</sup> ~~irritably~~ no wonder that these

Symptoms



Symptoms may be produced.

The Teeth coming out Irregularly often cause violent symptoms & when you inspect the mouth you'll see no Cause for it; what I mean by Irregular is, suppose it happens in the Incisors which are four in number in one Jaw & the first & the third to come out, after they have grown any length they will incline to each other & almost come in contact; in the same way as we see when a Tooth is extracted there will be a great vacancy but in a year afterwards the space will not be so great owing to the two teeth inclining to each other; if when the first & third have almost come in contact the second endeavour to come out, then it has not room to go straight up nor backwards nor forwards as it is too far advanced for that, & thereby violent symptoms may be produced without your seeing any thing to occasion it.

### The Method of Treatment of Teething

You can do very little here unless in cases where the Gums are swelled & inflamed owing to the teeth pressing against them. In cases of much fever a little blood may be taken; when the Gum is swelled some have recommended to make applications to

to the Gum in order to facilitate the coming out of the Tooth but these are of no Use, for any thing that is put into a Childs mouth is swallowed or spitted out at once, some have put Bely medicines on the Gum to Relax it; but it is swallowed or spitted out immediately & if swallowed will encrease the looseness which they have at this time but the Saliva is the only thing for relaxing the Gum, some have applied fomentations & Poultices to the face of the Child, but these are useless in so young an Infant & inconvenient as they must be taken off & applied every little while when the Child wants to suck; they have commonly at this time a Vomiting, & Loose belly which is occasioned by the Child sucking too much in order to prevent the itching of the mouth & abate the thirst. It sometimes happens that some other Accidental Disease may accompany Dentition & occasion a more violent fever. In order to facilitate Dentition cutting of the Gum has been used: Ambroise Paré was the first who used it & found it of service in particular Cases as when the Gum was swelled & Inflamed & the Tooth nigh at hand but when there were no marks of the tooth being nigh he says it is useless. Many cry out against cutting the Gum as they say, by it the tooth soon falls out & unless the

the tooth is nigh it will heal & form an eschar which will cause greater pain when it cuts it & it makes the Teeth Irregular.

As to the Tooth falling sooner out this does not signify as it is supplied by another, but I imagine that it is not the case & when the Gums are swelled & inflamed you take off the Serralon from the nerves & bloodvessels & thereby ease the pain, by bleeding & more especially when you take it from the self-vessels of the part affected as is done here by cutting the Gum. As to the Eschar it does not happen here for an Eschar depends on the toughness of the skin the quantity of fat & the deepness of the wound, but <sup>in</sup> the Gum the skin is thin & tender no fat & the wound is no more than the skin & thereby no Eschar can be formed & in confirmation of this there are many instances of the Gum being cut & healed sometimes & then the tooth coming out without giving the patient any uneasiness. If the violent symptoms of Dentition is owing to the Teeth coming out irregularly as I have mentioned before you cannot give any relief unless you extract one of the teeth which is at its side & you'll know this to be the case when the 3 Incisors are come out & another to come out between 2 of them & the symptoms violent you should then extract one at its side to allow it to come out



out & then the patient will have immediate relief. There are a variety of Medicines used ~~here~~ to facilitate Dentition which can have no effect, the Reason of them being used is that it is not one in Twenty that is bad in Teething & if any of these who are not bad wears an Anodyne Necklace then the praise is given to it.

### 3 Diet and the Diseases that arise from an Improper Diet.

The Organs of Digestion are more Delicate in the Ruminant than the Oviparous Animals for what they can break with their Will their Stomachs will Digest, but such is the state of young ruminant Animals that they should have such food only as requires little Exertion of the Digestive Organs & Nature has provided such food for them vizt the Milk of the mother & what nature has intended for them must surely be better than any other kind of food - hence human milk is better fitted for the human stomach than the milk of other Animals as Cows, Goats, Apes &c. - but should children get no other food all the time of the nursing than the milk of the mother? Surely they should for we find that all ruminant Animals soon take other food, thus Calves Lambs &c. soon eat Grass. therefore

therefore they should take a little food the next question is What is the proper time to begin them? Some have thought that the fourth or fifth month is soon enough & some are not for giving it so soon, but sure am I that the sooner you accustom them to it the better & if the Child should be seized early with some Disease which occasions a stoppage of the nose if it is not accustomed to take meat before, it will starve as it cannot suck so I think they should be learned to take some other food in about a fortnight after birth but they should get little at first & gradually give them more & more. The next question is What sort of food should they get whether vegetable or Animal? I do not doubt but that the longer you can keep a Child on vegetable food that it is so much the better, except in some cases where they are Disordered that they require some Animal food, & as the human milk partakes more of the Animal nature than that of other animals thereby they'll require less Animal food & may use more vegetables\*. Now since it is determined that they should have vegetable food, whether should they have it of the Leguminous or farinaceous Tribes? — The

\* I do not think this conclusion just, for that argument shows that Children should have a little animal food as well as vegetable as the food intended for them by nature partakes of them both.

The Leguminous are more difficult of Digestion than the Farinacea & therefore not so proper. The Farinacea becomes lighter according to the preparation & those that run <sup>together</sup> with water is difficult of digestion this flour & water is bad of Digestion & therefore improper but if you add a little yeast to it & put it in a proper degree of heat it will ferment & then dried in the oven becomes the best food for children as it is exceedingly light; & you may judge of the lightness of food by its solubility in water as the more soluble it is it will digest the easier & Ryeal is very soluble in water.

There have been disputes about the Farinacea, some are thought to be lighter & some hotter & those which run together after fermentation become lightest & those which are coarser are more Purgative of the first kind is fine flour & of the second is Coarse flour, Rye, Oat & Barley Ryeal: this purgative quality in them depends on there <sup>being</sup> more of the husk, which is the most purgative part of the Farinacea; but as it is proper to keep the belly of a child <sup>open</sup> therefore they should get Rye, Oat coarse flour or Barley Ryeal. Some have imagined that Oat meal is hotter than any other because in those parts where it is greatly used the people have often the Itch as in the Highlands, but it is not owing to this for the people there are not at the pains to free themselves of it & thereby communicate the Contagion.



Contagion from one to another. The best food then for children is to boil Maccad among water when the water is almost evaporated to add some milk & a little sugar, or instead of Maccad you may take oat meal & boil it among water & then add milk & sugar, or when they are costive use Ale instead of water. & this is the best Panada for a young Child. It is not Common to keep children on vegetable Aliment all the time they are on the Maccad but also to give some Animal food but I have said that the longer you can keep them on a vegetable Diet the better; but it is sometimes necessary to give them some Animal food & therefore I shall show which is the most proper. The lightest kind is the most proper. & Animals are heavier according to the greater quantity of Oil & Mucilage they contain & you will find that young Animals contain a greater quantity of this than old Animals & are therefore heavier thus Veal is heavier than Beef, for if you boil a pound of Veal & a pound of Beef separately, the Broth of the Veal will be stronger & more gelatinous than the Broth of the Beef, & if a person takes a hearty meal of Veal some time after he is thirsty fewer wh he. which does not happen after Beef & therefore young meat in general is heavier than old but besides young meat contains more Acid than

than Old meat & is thereby more improper as Children have a Disposition to have an Acid on the Stomach. Some Animals have been thought to be heavier than Wild, but the heavyness depends on the Different Genera, on the state of the Animal itself as being fat, & it depends also on Cookery. Fowls are commonly the lightest & thereby the best, but should be given in the form of Broth, for the Stomach of a Child cannot digest properly the solid meat; Beef Tea or weak Veal Broth will answer extremely well & I think will do better than fowl Broth as they contain less Acid. Altho it is usual to give Broths to Children, yet I think the Panada mentioned is sufficient food for a Child on the breast - unless in a few Cases.

We shall now Consider the Changes that the Food undergoes in the Stomach that we may better understand the Diseases that arise from the Diet. It is thought that the Change which Milk undergoes is Coagulation & this is taken from Analogy as Cow Milk &c is coagulated by Rennet. & this is found in all Animals but I have shown that the human Milk is not in the least affected by Rennet & thereby does not seem to be coagulated in the Stomach; they thought that the use of the Coagulation was that it gave time

to the Lactals to take it up, but we see the Lactals  
can take up Liquids w<sup>th</sup> do not coagulate as well  
as those which coagulate as to w<sup>th</sup> this dep.

All milk has a tendency to turn acid on the Stomach  
but the human Milk has not so great a tendency  
as that of other Animals - hence the milk of other  
Animals may disagree with a Childs stomach  
when human milk will not. The milk of one  
Woman may agree better with a Child than that  
of another woman & it is a common Grievance  
when the Child is obliged to change the nurse  
two or three times & is thought to do the Child  
harm but unless in particular cases there  
is no harm in changing the nurse two or three  
times for we find that they use milk of dif-  
ferent Animals as Cows dep without doing  
them any harm & the milk of one Woman  
is more of the same nature of another woman  
than of any other Animals. The whole of  
the food of Children has a tendency to be  
dry both Vegetable & Animal but more  
particularly the first. I proceed now to the  
Diseases arising from Diet.

Children may be hurt by having too small  
a quantity of food & when the Child is very  
costive you may have a strong suspicion  
that this is the case, but you cannot be  
certain for some Womens milk is Costive  
but if along with the Costiveness of the Child  
the



the Nurse's Breasts are never full & the Child not satisfied when it comes from the breast you may be certain this is the case & when given to another nurse it panges freely you can have no Doubt, & you know if the Woman has plenty of milk for then she is obliged to milk her Breasts for the first two or three weeks or get another Child as there is more milk secreted than what one Child can suck at that time. Sometimes a Child sucks too much, but it is not easy for them to do this unless they are sickly. Children at first should suck frequently & little at a time but when they grow older they may get it seldom & at stated times; every Child that is indisposed sucks more than the stomach is capable of Digesting, they suck thus much in order to quench their thirst & this too great quantity causes Vomiting & Purging. Children are liable to a variety of acute Distempers which may be referred to the six following heads

- 1 To the Milk disagreeing with them & stimulating the Stomach & Guts.
- 2 Teething.
- 3 The common Epidemics going about
- 4 Water on the Head
- 5 Worms and 6<sup>th</sup> Catarrhus suffocativus or

or Group.

The milk disagreeing with the Child & producing Vomiting & Purging. This may happen in any time of the nursing; Vomiting & Purging is known when it happens from this Cause by the Color & smell of what is evacuated for here it is always Acid & this is better detected by what I mentioned formerly with a piece of Paper moistened with some vegetable color, as there may be an Acidity of what is evacuated & yet not known by its color or smell; & when this is the case they have seemingly Colic pains which is known by their constant crying and putting their Thighs up towards their Bellies The Cure. This is done by Cleaning the Prima via & correcting the Acidity by giving the Nurse Animal food of the Old & full grown kind & the Child some broths of the same. Children will bear Evacuations very well & therefore the cleaning the Prima Via should be first done & the method I generally use is I dissolve a grain of Tart. Emet. in  $\text{℥iv}$  of Water & I give two tea spoonfulls of it every quarter of an hour till it operate or if the Child is very weak & Delicate  $\text{℥}^{\text{ss}}$  or  $\text{℥}^{\text{ss}}$  of the Tincture of Speacocan will answer very well. You should give the Nurse such things as correct the Acidity, but it is not so easy to affect the Milk of Women as that of other Animals

I tried an Expt on a Cow I did not give here any  
 meat for twenty four hours & then I gave her a  
 mash of Bran with some of the Rubella Tinctorem  
 among it in some hours after I found her milk  
 tinged Red with it; I then tried the Expt on a  
 Witch (which is like the human body in that res-  
 spect that it is not easy to affect her milk) I gave  
 her one ounce of madder in the Day among her  
 meat, which was more in proportion to weight  
 than I gave the Cow & continued this for several  
 Days yet the milk was not in the least affected  
 by it, but I showed you before that by keeping  
 a Witch on Animal food the milk becomes  
 more Alkalescent & of an Animal nature, so  
 in like manner by keeping a woman on Animal  
 food her milk will become more Alkalescent.  
 It is a practice to give the Child a little Spirits.  
 this may cure the Child for a little, for it will  
 prevent <sup>the milk</sup> it from going so soon to Acidity for a  
 little time but at last it will acquire as much  
 Acidity as it would have done altho the Spirits  
 was not given - thus if you put some Expt C.C.  
 among milk at first it is Alkalescent but  
 by remaining some time in the heat of the  
 human body the Acid of the milk will over-  
 come the Alkali & will become as acid as if  
 the Expt C.C. had not been put amongst it: & this  
 is the same way with Spirits: but Spirits is of  
 service



service on another Account as the Child at this time has Colic pains & flatulency. which will often be removed by it; so you can give the Child a little weak punch or a tea spoonfull of Brandy. I have often tried to give Children Injections of Lime water, but I never saw them of any Service.

2 Teething. When a Child is seized with any Acute Distemper about the second or third month you are sure that it is not Teething, but if the 5<sup>th</sup> month & the Child not cut any teeth very probably it is not teething as the first are always easy; if about the 6 or 7 month & if there is an itching of the mouth which is known by the Child putting its fingers or any hard substance in its mouth; has a constant flow of the Saliva & the Gums swelled then you are sure that it is owing to Dentition & is cured in the manner mentioned before. Vide P. 493

3 Common Epidemic Diseases going about. Children are sometimes seized with them and when you see a Child seized suddenly with fever with a full Pulse, frequent startings & perhaps a violent Cough & watery Eyes, if the Measles are going about you have reason by the two last symptoms to suspect the Child to be seized with the Measles; without these two last symptoms & the Small Pox going about you have reason to suspect them. but

but if it has continued four or five Days without any Eruption you may be sure that it is none of them.

4 Water in the Head. This often happens but the symptoms are so obscure that before we know this to be the Disease, it is so far gone on that we can be of no service.

The Symptoms are as follows. The Eye is oppressed & the Child cannot support its head but lies on its shoulder, the pulse very quick & the Child has a vomiting, but what is thrown up is not acid & vomiting always attends this Disease in young Children. After these symptoms have continued some time the Pulse from being quick now becomes slower than the standard, a Childs pulse naturally is about 120 or 130 & instead of this it will be 60 or 70 & the feverish heat continues altho' the pulse is slow, this shows that there is a compression on the Ventricle, & as there are some Diseases of Children where the Pulse is as slow as here - but in them when this is the Case there is no feverish heat, so the feverish heat distinguishes this Disease from the others; the Child sleeps a good deal & often awakes with startings & cryings, have flushings of the face sometimes & at others paleness of it & sometimes they have a paleness in one Cheek & a flushing in the other; the pulse again becomes

becomes quick & in the progress of the Disease the light which was before Disagreeable does not affect them in the least & on the application of a light near the Eye the pupil dilates more, then they are seized with Convulsions & Die. There is a Disease which frequently attacks Children viz 5 Worms which will produce most of the symptoms mentioned in the Hydrocephalus the chief differences are the Progress of the Hydrocephalus continues about three Weeks but in Worms some Months. in Worms the Pulse is sometimes slow but then the skin is cool, whereas the feverish heat continues in the Hydrocephalus, in Worms there is a flushing of the face & sometimes paleness of it, but have not a flushing in one cheek & paleness in the other at the same time; In both there is a picking of the nose, Vomiting & grinding of the Teeth if they have any.

6 Catarrhus Suffocativus or Croup. — This is a violent cough which rough & stridulous Inspiration & are like to be suffocated, this Disease will often carry off the Patient in 24 hours or three Days & they have very often very Deceitful intervals that if they are bad in the forenoon & when you see them in the Afternoon they seem quite well



will but in a few hours after that they will die of it.

You will often find Distempers which you cannot refer to any of these heads, but small Acute Distempers of Children they are much the better of Evacuations. Authors are against Evacuations as they say they do not bear them well but on the contrary they bear them very well, so the first thing you do is to apply a Leech when they are feverish, you cannot here use the Lancet as their veins are very small & do not appear well & the only one that could be used is the jugular, but this is not convenient as you cannot apply a tight bandage & by the Child crying more blood may come away than what you intended as it will be difficult to stop it; one Leech is sufficient & by it you may take away a good quantity of blood & a greater quantity than what it will take from an Adult as the body of a Child is fuller of vessels & a Leech will readily fall upon one & I have seen them often very difficult to stop in Children. What is the most proper part to apply the Leech? Some have recommended them to be applied to the nape of the neck, but by this you expose the Child

by which it may catch cold & if it is difficult to stop  
 you cannot well do it here as you cannot  
 make a tight Ligature, so the best part is the  
 Legs or feet where you can easily stop it.  
 Sometimes by the Child kicking with its feet  
 it is difficult to make them fasten, the only  
 way to remedy this is to put a Leech in a stock-  
 ing which you'll put on the Child's Leg & allow  
 the Leech to fasten on any part of the Leg or  
 foot it pleases. The next thing to be done is to  
 clean the Primæ Viæ, & you can vomit and  
 Purge them which they bear very well; if the  
 Child is Costive a Glyster will ease them im-  
 mediately, it is better than a Dose of Physic  
 as its operation is quicker or what will an-  
 swer still better is a Suppository which can  
 be made of Castile Soap & this will not fail  
 to procure passage in their Belly immed-  
 ately. — Sometimes when the pain is so great  
 that it makes them constantly cry & perhaps  
 throw them into Convulsions Laudanum is  
 the only remedy provided you do not over dose  
 them & seven grs of Laudanum will be suf-  
 ficient; for an Over Dose of Laudanum will  
 throw them into Convulsions. a Woman in the  
 Lying-in Ward gave her Child a table spoonful  
 of

of the Syrup of Poppies to prevent it from crying in a short time after it was secured with Convulsions I ordered a blister to be applied to its back & next morning I was surprised to find it perfectly well & thought that it was owing to the blister, when I learned that it had got an over dose of Laudanum I knew it could have little effect, for as soon as the Opium lost its effect the Convulsions would cease.

This finishes the Diseases  
of Children & also the Course of  
Midwifery

Edinburgh 3 February 1772

Conclusion



## Conclusion

Before we part it will not be improper to offer you a few Directions with regard to your future Conduct.

I mentioned at first that you should read no Authors on Midwifery till you have had a Course except perhaps some Elementary Treatise. It is now time you should begin to read some of the principal Authors & I think I can recommend a Book to you that will satisfy you on all the Diseases of Women and Children viz the 4 Vol. of Van Swieten's Commentary on Boerhaave's Aphorisms — But for the practical part this is not sufficient, for which consult Dr Smellie Daventer Moriceau, La Motte Gifford &c. and you should note down where their opinions differ from the Dictates you have received. You should take every opportunity to note down the remarkable Cases that occur when you enter upon practice, for a Physician often gains much reputation from his Pragmatic & the only way to make a young Practitioner an old one is carefully to write down all the Cases that occur to him & not trust to memory, for you will be surprised in

in how short a time a case that struck you very much at first will escape you. —

In Midwifery Cases it is of great consequence to be well acquainted with the Laborious birth & they give you the most trouble of any. — Therefore you should note down the Woman's Constitution, the nature of the pains but particularly the Dilatation of the orifice of the womb. A man that practises Midwifery requires a greater degree of Composure & patience than any other operator. —

A Modest Behaviour is necessary in every Country, but still more in those where Midwifery is just falling into the hands of men. —

A Woman will often give you a full account of her case by means of her nurse, maid or friend & there are many questions you should avoid putting to the woman herself directly.

In a Common Natural Labour be not in too great a hurry to examine a woman, not till she is put to Bed, where you lay her on her side with her back to you, darken the Curtains & take the opportunity for the first time when there are few Assistants in the Room.

Secrecy is absolutely necessary & therefore do not entertain one Woman <sup>with</sup>

with the Complaints & Oddities of another, for when she reflects she will immediately judge that when you leave her she will be served in the same way; I do not mean that you should never encourage a Woman by telling her a Case similar to her own, who did well. But above all avoid communicating to the other Sex any secret you learn from the nature of your Attendance; else be assured that it will meet you to your Disgrace. —

*Finis*



*Table of Diets for an Im-Gym  
Woman for the first five Days where nothing  
extraordinary happens*

Breakfast	} Tea	Green
		Bohea
		Cinnamon
		Toasted Biscuits

Dinner	{	Beef Tea
		Chicken broth
		a piece of Roasted Chicken
		Panada with a little white Wine or simple Cinnamon Water

Supper	{	Caudle with Ale or Wine
		Barley & Currants w <sup>th</sup> some Wine or Cinnamon water
		Panada w <sup>th</sup> wine or Cinnamon water
		Sack whey & Toasted Biscuits

# Table of Diet for the second 5 Days

Breakfast the same as before

Dinner { The same as before or  
Roasted Chickens & Fowls,  
an Egg. Boiled vegetables  
such as the Season can afford.

Supper { The same as before or  
an Egg dressed in the Shell. or  
Any of the vegetables recommended  
for Dinner.

## Drinks

Water Gruel. Barley or Rice water plain,  
or with some White wine or simple Cenna:  
mon water amongst it. Toast & water,  
Chicken water, weak Beef Tea, weak Negus.

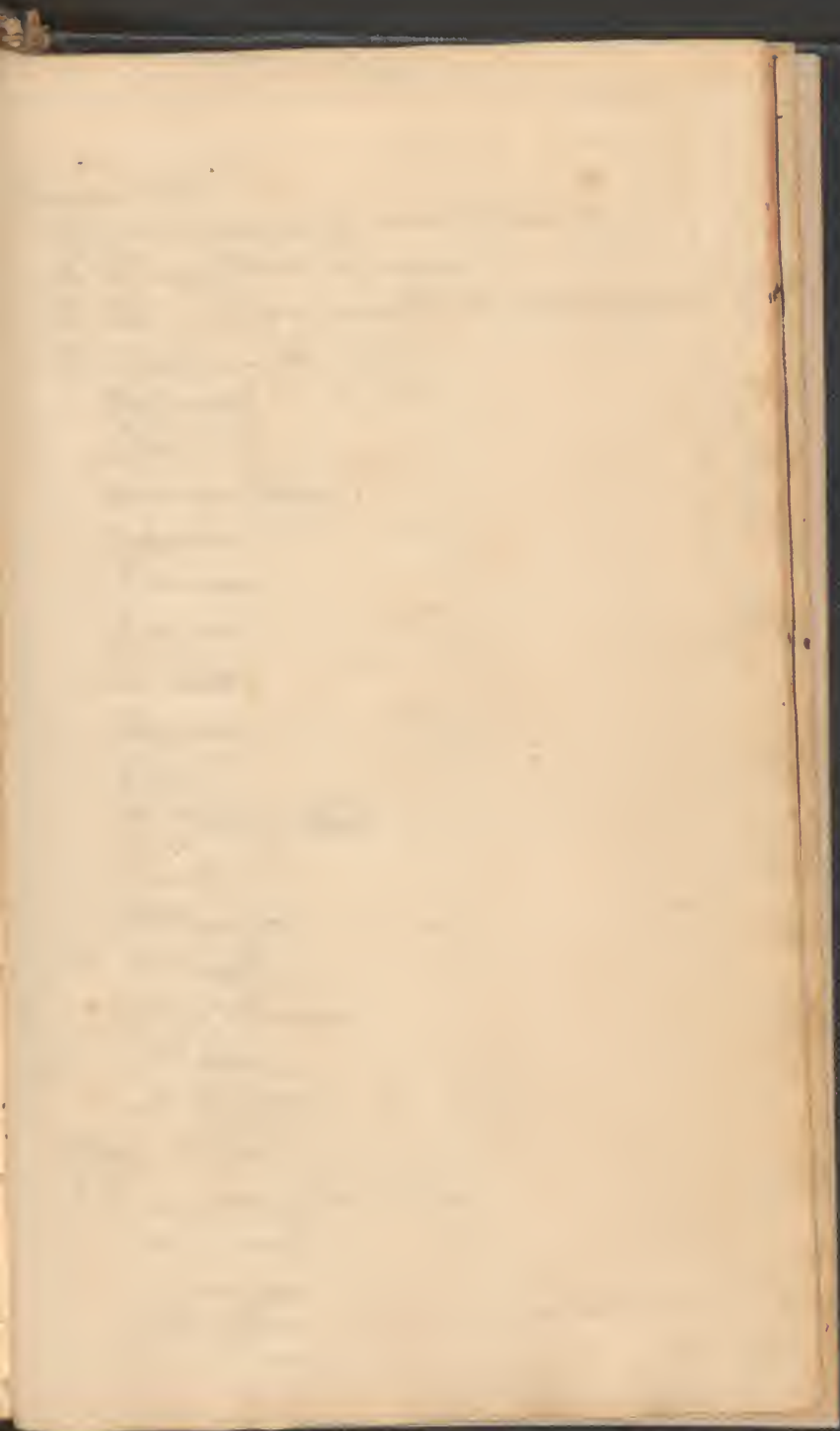
After the 10<sup>th</sup> Day if a woman Recovers -  
well she may take the Common Diet of the  
Family in Moderation

$$m = 2, \quad \lambda = \lambda_2^2$$

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 100. *Quercus*

1871







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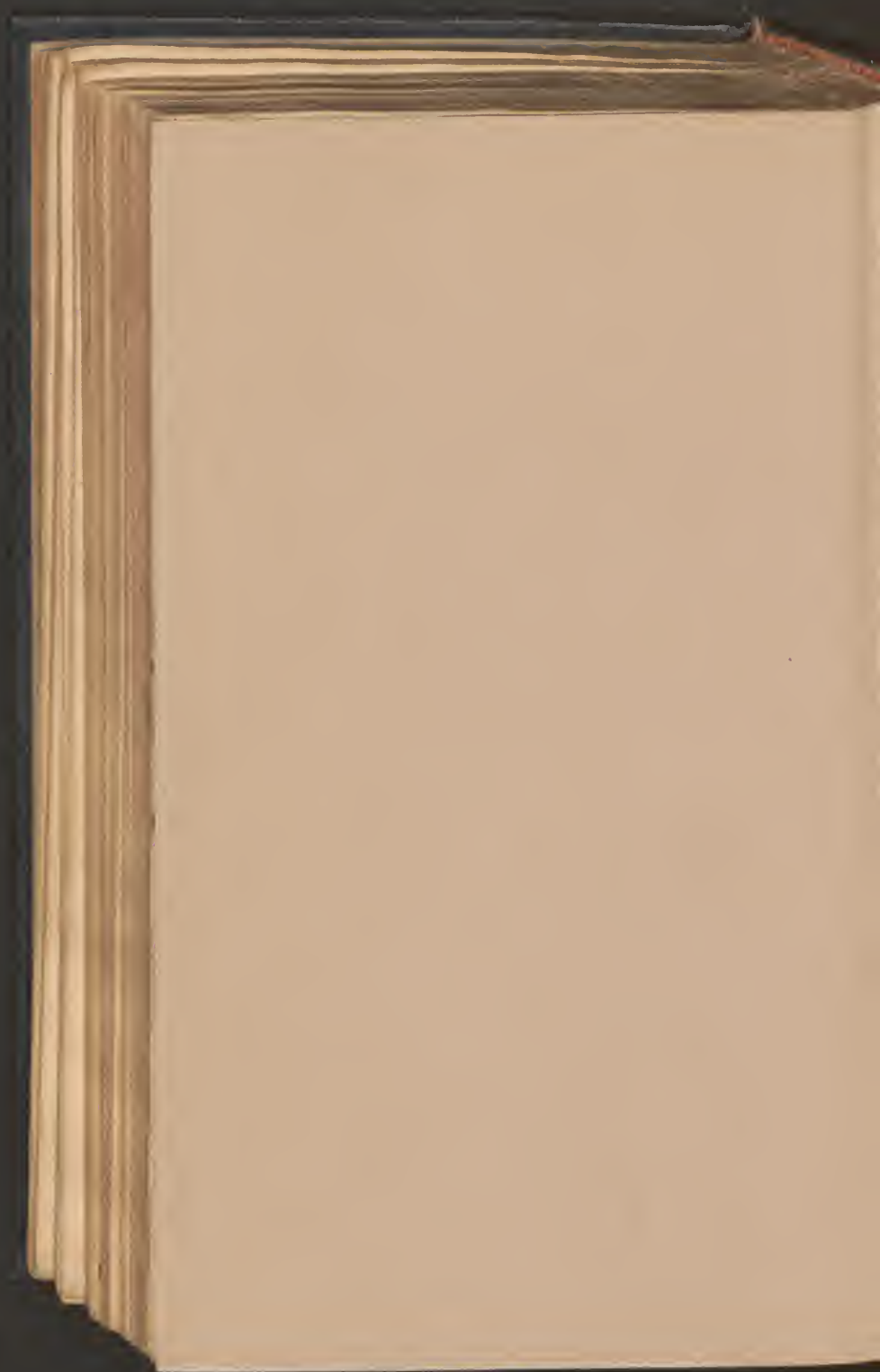


















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